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<213> Homo sapiens
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<212> DNA

<213> Homo sapiens

<400> 4305

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<210> 4306

<211> 1052

<212> PRT

<213> Homo sapiens

<400> 4306

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His Tyr Thr Val His Ile Leu Cys Ser Lys Cys Leu Lys Arg Gly Ser		975
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Pro Asn Pro His Ala Phe Pro Gly Glu Leu Leu Ser Gln Pro Arg Pro		990
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Glu Gly Val Ala Glu Ile Ile Cys Pro Lys Asn Gly Ser Glu Arg Val		1005
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Asn Val Ala Leu Val Tyr Pro Pro Thr Pro Thr Val Ile Ser Pro Cys		1020
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<212> DNA

<213> Homo sapiens

<400> 4307

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 Ser Cys Ser Cys Cys His Ala Ser Leu Cys Pro Ala Gly Gly Cys Gly
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tgaggagc
1928

<210> 4310

<211> 599

<212> PRT

<213> Homo sapiens

<400> 4310

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Met Asn Gly Ser Arg Arg Val Arg Ala Thr Ser Val Leu Pro Arg Tyr
 1              5              10              15
Gly Pro Pro Cys Leu Phe Lys Gly His Leu Ser Thr Lys Ser Asn Ala
              20              25              30
Phe Cys Thr Asp Ser Ser Ser Leu Arg Leu Ser Thr Leu Gln Leu Val
              35              40              45
Lys Asn His Met Ala Val His Tyr Asn Lys Ile Leu Ser Ala Lys Ala
 50              55              60
Ala Val Asp Cys Ser Val Pro Val Ser Val Ser Thr Ser Ile Lys Tyr
65              70              75              80
Ala Asp Gln Gln Arg Arg Glu Lys Leu Lys Lys Glu Leu Ala Gln Cys
              85              90              95
Glu Lys Glu Phe Lys Leu Thr Lys Thr Ala Met Arg Ala Asn Tyr Lys
              100              105              110
Asn Asn Ser Lys Ser Leu Phe Asn Thr Leu Gln Lys Pro Ser Gly Glu
              115              120              125
Pro Gln Ile Glu Asp Asp Met Leu Lys Glu Glu Met Asn Gly Phe Ser
130              135              140
Ser Phe Ala Arg Ser Leu Val Pro Ser Ser Glu Arg Leu His Leu Ser
145              150              155              160
Leu His Lys Ser Ser Lys Val Ile Thr Asn Gly Pro Glu Lys Asn Ser
              165              170              175
Ser Ser Ser Pro Ser Ser Val Asp Tyr Ala Ala Ser Gly Pro Arg Lys
              180              185              190
Leu Ser Ser Gly Ala Leu Tyr Gly Arg Arg Pro Arg Ser Thr Phe Pro
              195              200              205
Asn Ser His Arg Phe Gln Leu Val Ile Ser Lys Ala Pro Ser Gly Asp
210              215              220
Leu Leu Asp Lys His Ser Glu Leu Phe Ser Asn Lys Gln Leu Pro Phe
225              230              235              240
Thr Pro Arg Thr Leu Lys Thr Glu Ala Lys Ser Phe Leu Ser Gln Tyr
              245              250              255
Arg Tyr Tyr Thr Pro Ala Lys Arg Lys Lys Asp Phe Thr Asp Gln Arg
              260              265              270
Ile Glu Ala Glu Thr Gln Thr Glu Leu Ser Phe Lys Ser Glu Leu Gly
              275              280              285
Thr Ala Glu Thr Lys Asn Met Thr Asp Ser Glu Met Asn Ile Lys Gln
290              295              300
Ala Ser Asn Cys Val Thr Tyr Asp Ala Lys Glu Lys Ile Ala Pro Leu
305              310              315              320
Pro Leu Glu Gly His Asp Ser Thr Trp Asp Glu Ile Lys Asp Asp Ala
              325              330              335
Leu Gln His Ser Ser Pro Arg Ala Met Cys Gln Tyr Ser Leu Lys Pro
              340              345              350
Pro Ser Thr Arg Lys Ile Tyr Ser Asp Glu Glu Glu Leu Leu Tyr Leu
              355              360              365
Ser Phe Ile Glu Asp Val Thr Asp Glu Ile Leu Lys Leu Gly Leu Phe
370              375              380
Ser Asn Arg Phe Leu Glu Arg Leu Phe Glu Arg His Ile Lys Gln Asn

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385          390          395          400
Lys His Leu Glu Glu Glu Lys Met Arg His Leu Leu His Val Leu Lys
          405          410          415
Val Asp Leu Gly Cys Thr Ser Glu Glu Asn Ser Val Lys Gln Asn Asp
          420          425          430
Val Asp Met Leu Asn Val Phe Asp Phe Glu Lys Ala Gly Asn Ser Glu
          435          440          445
Pro Asn Glu Leu Lys Asn Glu Ser Glu Val Thr Ile Gln Gln Glu Arg
          450          455          460
Gln Gln Tyr Gln Lys Ala Leu Asp Met Leu Leu Ser Ala Pro Lys Asp
465          470          475          480
Glu Asn Glu Ile Phe Pro Ser Pro Thr Glu Phe Phe Met Pro Ile Tyr
          485          490          495
Lys Ser Lys His Ser Glu Gly Val Ile Ile Gln Gln Val Asn Asp Glu
          500          505          510
Thr Asn Leu Glu Thr Ser Thr Leu Asp Glu Asn His Pro Ser Ile Ser
          515          520          525
Asp Ser Leu Thr Asp Arg Glu Thr Ser Val Asn Val Ile Glu Gly Asp
          530          535          540
Ser Asp Pro Glu Lys Val Glu Ile Ser Asn Gly Leu Cys Gly Leu Asn
545          550          555          560
Thr Ser Pro Ser Gln Ser Val Gln Phe Ser Ser Val Lys Gly Asp Asn
          565          570          575
Asn His Asp Met Glu Leu Ser Thr Leu Lys Ile Met Glu Met Ser Ile
          580          585          590
Glu Asp Cys Pro Leu Asp Val
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<210> 4311

<211> 432

<212> DNA

<213> Homo sapiens

<400> 4311

nnacgcgtga agggcattcg cccttggaat tgtcagcgat gttttgcaca ttatgatgtc
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cagagcattt tgtttaatat caacgaagcc atggctaaga gggctaattgt ggggaaaagg
120

aaaaacataa ccaactggggc atctgcagca tcccagactc agatgcctac gggccagaca
180

ggcaactgtg agtccccctt agggagcaag gaggacctca actccaaaga gaacctggat
240

gccgatgagg gagatgggaa aagtaacgac ctgcgtcctta gttgtcctta ctttagaaat
300

gagactggag gggaaggcga caggcggatt gcgctctctc gagccaactc atcctctttc
360

agttctgggg aaagetgtc tttcgaatcg tcaactcagct ctcactgcac aaatgcaggt
420

gtctccgtct tg
432

<210> 4312

<211> 144

<212> PRT

<213> Homo sapiens

<400> 4312

Xaa Arg Val Lys Gly Ile Arg Pro Trp Asn Cys Gln Arg Cys Phe Ala
 1 5 10 15
 His Tyr Asp Val Gln Ser Ile Leu Phe Asn Ile Asn Glu Ala Met Ala
 20 25 30
 Thr Arg Ala Asn Val Gly Lys Arg Lys Asn Ile Thr Thr Gly Ala Ser
 35 40 45
 Ala Ala Ser Gln Thr Gln Met Pro Thr Gly Gln Thr Gly Asn Cys Glu
 50 55 60
 Ser Pro Leu Gly Ser Lys Glu Asp Leu Asn Ser Lys Glu Asn Leu Asp
 65 70 75 80
 Ala Asp Glu Gly Asp Gly Lys Ser Asn Asp Leu Val Leu Ser Cys Pro
 85 90 95
 Tyr Phe Arg Asn Glu Thr Gly Gly Glu Gly Asp Arg Arg Ile Ala Leu
 100 105 110
 Ser Arg Ala Asn Ser Ser Ser Phe Ser Ser Gly Glu Ser Cys Ser Phe
 115 120 125
 Glu Ser Ser Leu Ser Ser His Cys Thr Asn Ala Gly Val Ser Val Leu
 130 135 140

<210> 4313

<211> 936

<212> DNA

<213> Homo sapiens

<400> 4313

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 120
 attcagtatc caaccatcct ctccattctc ctctggacct caccactctc agagctgctt
 180
 gtccctggcag aatctacagt tcaccccaac tctatgcctt acccctccca acccaacagc
 240
 atttgagtt tgcaaaatat acagacccaa gtccctgaggg gactgaggac atgatgctgg
 300
 gcccaagtct cctgctcagg gcttctctcc aatgccagcc ctgccactcc ttcctcaccc
 360
 tccttgagc ctctctgtct gcttgtctat cccaacggcc ctgctccctt ccttctctgc
 420
 ccttcaccag ctttctggga cccatgccc tgaggaaggg acctttggtt ttctctaaac
 480
 atctttgaag ggctgaggca gtcagggtg gctgccttgt cactctttat ttggaagcca
 540
 ctcaaaccat tccaagaag agggacctca gctggcaatc tggaaacctg gccaggtct
 600
 gggcagatgt cttcacttct cctaccttcc cagtcttctg atcctgtgat gagcaccagg
 660
 atggccctgt ggtccctaga gcacctca tgctgtaggg tctgcagcc ccatccttcc
 720
 tctactgggc cctggtatcc tggctcctct ctcagctctg cactgatct ctgtgcctta
 780

gtttacttct ctgcacgggg gactcaccoc aagaccattt ccagcagctt cccagggtgat
 840
 gtgggtgcccc aaggctgggc tttagcagctg tggeccagct ccttagtgct gccaggaga
 900
 caccaggctg ctcagaatga ggtgactgcg ggcaac
 936

<210> 4314

<211> 110

<212> PRT

<213> Homo sapiens

<400> 4314

Met	Ser	Ser	Leu	Leu	Leu	Pro	Ser	Gln	Ser	Cys	Asp	Pro	Val	Met	Ser
1				5					10					15	
Thr	Arg	Met	Ala	Leu	Trp	Ser	Leu	Glu	His	Pro	Ser	Cys	Cys	Arg	Val
			20					25					30		
Leu	Gln	Pro	His	Pro	Phe	Ser	Thr	Gly	Pro	Trp	Tyr	Pro	Gly	Ser	Ser
		35					40					45			
Leu	Ser	Ser	Ala	Thr	Asp	Leu	Cys	Ala	Leu	Val	Tyr	Phe	Ser	Ala	Arg
	50					55					60				
Gly	Thr	His	Pro	Lys	Thr	Ile	Ser	Ser	Ser	Phe	Pro	Gly	Asp	Val	Val
65					70					75				80	
Pro	Gln	Gly	Trp	Ala	Leu	Gln	Leu	Trp	Pro	Ser	Ser	Leu	Val	Leu	Pro
			85					90						95	
Arg	Arg	His	Gln	Ala	Ala	Gln	Asn	Glu	Val	Thr	Ala	Gly	Asn		
			100					105					110		

<210> 4315

<211> 573

<212> DNA

<213> Homo sapiens

<400> 4315

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 cagagcgaatg accatgtgaa gacacaggga agagatggcc acctaccacc acgcatggt
 120
 cacctaccat ccaagccatg gtcaccttca ccaagccaca gtcacttacc atccaagcca
 180
 ccgtcaccta ccatccaagc catggccacc tacctgccaa gccatggcca cctaccgcc
 240
 aagccatggt cacctacca ccaagtcatg gtcgcctacc atccaaggag caggcctgga
 300
 acagatcctt cccagagcc cttagtagga gccaacctg ctgacacctt gatctcagac
 360
 ttcaagcctc cagaactgtg ggacaatcct tcaactgtcat ttaatccacc cagcatgtg
 420
 tctcttgta cagttgcatt agccagtga cctaccggg cccttctgca gtcgcctggc
 480
 tcaggagtgg ttctggtcag gaagttctga ggccaggcag gatcgggaca ctccctggaa
 540
 agaccgagg gagatatttg ggaaacaaga tgg
 573

<210> 4316
 <211> 169
 <212> PRT
 <213> Homo sapiens

<400> 4316
 Xaa Leu Ile Gln Tyr Asp Trp Cys Pro Tyr Lys Lys Arg Lys Leu Gly
 1 5 10 15
 His Arg Gln Ala Gln Ser Asp Asp His Val Lys Thr Gln Gly Arg Asp
 20 25 30
 Gly His Leu Pro Pro Arg His Gly His Leu Pro Ser Lys Pro Trp Ser
 35 40 45
 Pro Ser Pro Ser His Ser His Leu Pro Ser Lys Pro Pro Ser Pro Thr
 50 55 60
 Ile Gln Ala Met Ala Thr Tyr Leu Pro Ser His Gly His Leu Pro Ala
 65 70 75 80
 Lys Pro Trp Ser Pro Thr His Gln Val Met Val Ala Tyr His Pro Arg
 85 90 95
 Ser Arg Pro Gly Thr Asp Pro Ser Pro Glu Pro Ser Val Gly Ala Asn
 100 105 110
 Pro Ala Asp Thr Leu Ile Ser Asp Phe Lys Pro Pro Glu Leu Trp Asp
 115 120 125
 Asn Pro Ser Leu Ser Phe Asn Pro Pro Ser Met Trp Ser Leu Val Thr
 130 135 140
 Val Ala Leu Ala Ser Glu Pro Thr Arg Ala Leu Leu Gln Ser Pro Gly
 145 150 155 160
 Ser Gly Val Val Leu Val Arg Lys Phe
 165

<210> 4317
 <211> 744
 <212> DNA
 <213> Homo sapiens

<400> 4317
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 tcccatgccg aaaacatact ccagatatctt aatgaatttc gtgatagccg cttattcaca
 120
 gatgttatca tttgggtgga aggaaaagaa tttccttgcc atagagctgt gctctcagcc
 180
 tgtagcagct acttcagagc tatgttttgt aatgaccaca gggaaagccg agaaatgttg
 240
 gttgagatca atggtatttt agctgaagct atggaatgtt ttttgcagta tgtttatact
 300
 ggaaagggtga agatcactac agagaatgta cagtatctct ttgagacatc aagcctcttt
 360
 cagattagtg ttctccgtga tgcattgtgcc aagttcttgg aggagcaact tgatccttgt
 420
 aattgcttag gaatccagcg ctttgctgat acccattcac tcaaaacact cttcaca^{aaa}
 480
 tgcaaaaatt ttgcgttaca gacttttgag gatgtatccc agcacgaaga atttcttgag
 540

cttgacaaag atgaacttat tgattatatt tgtagtgatg aacttggttat tggtaaagag
 600
 gagatggttt ttgaagccgt catgcgttgg gtctatcgtg ccggtgatct gagaagacca
 660
 ctgttacacg agctcctgac acatgtgaga ctccctctgt tgcaccccaa ctactttgtt
 720
 caaacagttg aagtggacca attg
 744

<210> 4318

<211> 239

<212> PRT

<213> Homo sapiens

<400> 4318

Pro	Val	Arg	Asp	Leu	Gly	Ser	Ile	Ser	Gly	Ser	Ser	His	Ala	Glu	Asn
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Ile	Leu	Gln	Ile	Phe	Asn	Glu	Phe	Arg	Asp	Ser	Arg	Leu	Phe	Thr	Asp
		20						25				30			
Val	Ile	Ile	Trp	Val	Glu	Gly	Lys	Glu	Phe	Pro	Cys	His	Arg	Ala	Val
	35					40					45				
Leu	Ser	Ala	Cys	Ser	Ser	Tyr	Phe	Arg	Ala	Met	Phe	Cys	Asn	Asp	His
	50					55				60					
Arg	Glu	Ser	Arg	Glu	Met	Leu	Val	Glu	Ile	Asn	Gly	Ile	Leu	Ala	Glu
65					70					75				80	
Ala	Met	Glu	Cys	Phe	Leu	Gln	Tyr	Val	Tyr	Thr	Gly	Lys	Val	Lys	Ile
			85					90					95		
Thr	Thr	Glu	Asn	Val	Gln	Tyr	Leu	Phe	Glu	Thr	Ser	Ser	Leu	Phe	Gln
		100						105					110		
Ile	Ser	Val	Leu	Arg	Asp	Ala	Cys	Ala	Lys	Phe	Leu	Glu	Glu	Gln	Leu
	115					120						125			
Asp	Pro	Cys	Asn	Cys	Leu	Gly	Ile	Gln	Arg	Phe	Ala	Asp	Thr	His	Ser
	130					135				140					
Leu	Lys	Thr	Leu	Phe	Thr	Lys	Cys	Lys	Asn	Phe	Ala	Leu	Gln	Thr	Phe
145					150					155				160	
Glu	Asp	Val	Ser	Gln	His	Glu	Glu	Phe	Leu	Glu	Leu	Asp	Lys	Asp	Glu
			165					170				175			
Leu	Ile	Asp	Tyr	Ile	Cys	Ser	Asp	Glu	Leu	Val	Ile	Gly	Lys	Glu	Glu
	180							185				190			
Met	Val	Phe	Glu	Ala	Val	Met	Arg	Trp	Val	Tyr	Arg	Ala	Val	Asp	Leu
	195					200						205			
Arg	Arg	Pro	Leu	Leu	His	Glu	Leu	Leu	Thr	His	Val	Arg	Leu	Pro	Leu
	210					215					220				
Leu	His	Pro	Asn	Tyr	Phe	Val	Gln	Thr	Val	Glu	Val	Asp	Gln	Leu	
225					230					235					

<210> 4319

<211> 388

<212> DNA

<213> Homo sapiens

<400> 4319

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ccaggccgta gccacagcaa ggaccgaacc ctgggaaaac cagacagcct tttagtgcct
 120
 gcagtcgcaa gtgactcttg caataatagc atctcactcc tatctgaaaa gttgacaage
 180
 agctgttccc cccatcatat caagagaagt gtagtggaag ctatgcaacg ccaagctcgg
 240
 aaaatgtgca attacgacaa aatcttggcc acaaagaaaa acctagacca tgtcaataaa
 300
 atcttaaaag ccaaaaaact tcaaaggcag gccaggacag ggaataactt tgtgaaacgt
 360
 aggccaggtc gaccgcggtc ggagagag
 388

<210> 4320

<211> 129

<212> PRT

<213> Homo sapiens

<400> 4320

Xaa	Met	Glu	Lys	Ser	Ile	Asp	Ala	Val	Ile	Ala	Thr	Ala	Ser	Ala	Pro
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Pro	Ser	Ser	Ser	Pro	Gly	Arg	Ser	His	Ser	Lys	Asp	Arg	Thr	Leu	Gly
			20					25					30		
Lys	Pro	Asp	Ser	Leu	Leu	Val	Pro	Ala	Val	Ala	Ser	Asp	Ser	Cys	Asn
		35				40						45			
Asn	Ser	Ile	Ser	Leu	Leu	Ser	Glu	Lys	Leu	Thr	Ser	Ser	Cys	Ser	Pro
	50					55					60				
His	His	Ile	Lys	Arg	Ser	Val	Val	Glu	Ala	Met	Gln	Arg	Gln	Ala	Arg
65				70					75					80	
Lys	Met	Cys	Asn	Tyr	Asp	Lys	Ile	Leu	Ala	Thr	Lys	Lys	Asn	Leu	Asp
			85					90					95		
His	Val	Asn	Lys	Ile	Leu	Lys	Ala	Lys	Lys	Leu	Gln	Arg	Gln	Ala	Arg
		100					105					110			
Thr	Gly	Asn	Asn	Phe	Val	Lys	Arg	Arg	Pro	Gly	Arg	Pro	Arg	Ser	Glu
		115					120					125			

Arg

<210> 4321

<211> 278

<212> DNA

<213> Homo sapiens

<400> 4321

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 gaccaggctc cttggtgaga agaccaccac agcggcaggg tccagccaca gcaggccccg
 120
 cgtccccgtg gaaggcagcc ctggggcgaa cccaggcggt taacgggtca ctaggcagcc
 180
 ccagatctgg ggaacagatg agcacgtggg gagctggagt gagctgagca gaagttttgt
 240
 gcccgctgc ccccatcccc tccaggccac gttttaga
 278

<210> 4322
 <211> 85
 <212> PRT
 <213> Homo sapiens

<400> 4322
 Met Gly Ala Gly Gly His Lys Thr Ser Ala Gln Leu Thr Pro Ala Pro
 1 5 10 15
 His Val Leu Ile Cys Ser Pro Asp Leu Gly Leu Pro Ser Glu Pro Leu
 20 25 30
 Asn Ala Trp Val Pro Pro Arg Ala Ala Phe His Arg Asp Ala Gly Pro
 35 40 45
 Ala Val Ala Gly Pro Cys Arg Cys Gly Gly Leu Leu Thr Lys Glu Pro
 50 55 60
 Gly Leu Ala Ala Trp Asn Asn Leu Gln Val Gly Val Leu Arg Gly Leu
 65 70 75 80
 Trp Gln Val Leu Gly
 85

<210> 4323
 <211> 1542
 <212> DNA
 <213> Homo sapiens

<400> 4323
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 ctgaaagact cgacattcag ccagtttagc ccgatctcca gtgctgaaga gtttgatgac
 120
 gacgagaaga ttgaggtgga tgacccccct gacaaggagg acatgcgatc aagcttcagg
 180
 tcgaatgtgt tgacgggggc ggctccccag caggactacg ataagctgaa ggcactcgga
 240
 ggggaaaact ccagcaaac tggactctct acgtcaggca atgtggagaa aaacaagct
 300
 gttaagagag aacagaagc cagttctata aacctgagt tttatgaacc ttttaaagtc
 360
 agaaaagcag aggataaatt gaaggaaagc tctgacaagg tgctggaaaa cagagtccta
 420
 gatgggaagc tgagctccga gaagaatgac accagcctcc ccagcgttgc gccatcaaag
 480
 acaaagtcgt cctccaagct ctgcctctgc atcgtgcca tcggggtct cagcgctaaa
 540
 aaggcggett cagactcctg caaagaacca gtggccaatt cgagggaatc ctccccgtta
 600
 ccaaaagaag taaatgacag tccgagagcc gctgacaagt ctctgaatc ccagaatctc
 660
 atcgacggga ccaaaaaacc atccctgaag caaccggata gtcccagaag catctcaagt
 720
 gagaacagca gcaaaggatc cccgtcctct cccgcggggc ccacaccagc aatccccaaa
 780
 gtccgcataa aaaccattaa gacatcttct ggggaaatca agagaacagt gaccagggtg
 840

ttgccagaag tggatcttga ctctggaaag aaaccttcg agcagacagc gtcggtcatg
 900
 gcctctgtga catcccttct gtcgtctcca gcatcagccg ccgtccttcc ctctcccccc
 960
 agggcgccctc tccagtctgc ggctgtgacc aatgcagttt cccctgcaga gtcaccccc
 1020
 aaacagggtca caatcaagcc tgtggctact gctttcctcc cagtgtctgc tgtgaagacg
 1080
 gcaggatccc aagtcattaa tttgaagctc gctaacaaca ccacggtgaa agccacggtc
 1140
 atatctgctg cctctgtcca gactgccagc agcgccatca ttaaagctgc caacgccatc
 1200
 cagcagcaaa ctgtcgtggt gccggcatcc agcctggcca atgccaaact cgtgccaaag
 1260
 actgtgcacc ttgccaacct taaccttttg cctcagggtg cccaggccac ctctgaactc
 1320
 cgccaagtgc taaccaaacc tcagcaacaa ataaagcagg caataatcaa tgcagcagcc
 1380
 tcgcaacccc ccaaaaaggt gtctcgagtc caggtgggtgt cgtccttgca gagttctgtg
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 gtggaagctt tcaacaaggt gctgagcagt gtcaatccag tccctgttta catcccaaac
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 1542

<210> 4324

<211> 514

<212> PRT

<213> Homo sapiens

<400> 4324

Xaa	Tyr	Ser	Lys	Asp	Gly	Ala	Lys	Ser	Leu	Lys	Gly	Asp	Val	Pro	Ala
1			5						10					15	
Ser	Glu	Val	Thr	Leu	Lys	Asp	Ser	Thr	Phe	Ser	Gln	Phe	Ser	Pro	Ile
			20					25					30		
Ser	Ser	Ala	Glu	Glu	Phe	Asp	Asp	Asp	Glu	Lys	Ile	Glu	Val	Asp	Asp
		35					40					45			
Pro	Pro	Asp	Lys	Glu	Asp	Met	Arg	Ser	Ser	Phe	Arg	Ser	Asn	Val	Leu
	50				55					60					
Thr	Gly	Ser	Ala	Pro	Gln	Gln	Asp	Tyr	Asp	Lys	Leu	Lys	Ala	Leu	Gly
65					70				75					80	
Gly	Glu	Asn	Ser	Ser	Lys	Thr	Gly	Leu	Ser	Thr	Ser	Gly	Asn	Val	Glu
			85					90					95		
Lys	Asn	Lys	Ala	Val	Lys	Arg	Glu	Thr	Glu	Ala	Ser	Ser	Ile	Asn	Leu
			100					105					110		
Ser	Val	Tyr	Glu	Pro	Phe	Lys	Val	Arg	Lys	Ala	Glu	Asp	Lys	Leu	Lys
		115					120				125				
Glu	Ser	Ser	Asp	Lys	Val	Leu	Glu	Asn	Arg	Val	Leu	Asp	Gly	Lys	Leu
	130					135					140				
Ser	Ser	Glu	Lys	Asn	Asp	Thr	Ser	Leu	Pro	Ser	Val	Ala	Pro	Ser	Lys
145				150					155					160	
Thr	Lys	Ser	Ser	Ser	Lys	Leu	Ser	Ser	Cys	Ile	Ala	Ala	Ile	Ala	Ala
			165					170					175		
Leu	Ser	Ala	Lys	Lys	Ala	Ala	Ser	Asp	Ser	Cys	Lys	Glu	Pro	Val	Ala

3518

gaaccggctc atctttccag gcgagaaggt agcgtctggg tcctgggggt ctgactgagc
 180
 agcctggccc ctcgaggtcc ctgcttgctc ctcccacagg cagcctggcc tgctgcagcc
 240
 cgccagctcc tccttggcct ttgaggacag actcgatgtc ctgatgtcc acgaggtggg
 300
 gtgtctgctt gtgttgaggg tgcggtgccc tgagtgtgt tttttctccc ccaggtgctc
 360
 ttggcgtggt ctggggggcc ttctccagc tccatggtct ggcaggttct tgagggcctg
 420
 agccaagatt ctgcaaaaag actgcgcttt gtggcaggag tcctctttgt tgacgagggg
 480
 gcagcctgtg gccagagcct agaggagaga tcaaagaccc tggccgaagt gaagcccatt
 540
 ctgcaagcaa ctgggttccc atggcatgtg gtggccttag aggaggtgtt cagcctgcca
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 ccgtcgggtc tttggtgctc tgcccaggag ctggtgggat ccgagggggc ctacaaggcg
 660
 gccgtggaca gcttctcca gcagcagtat gtgctggggg ccgggggtgg tcctggcccg
 720
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 900
 cagggtact ccaaggtcat gactggggac agctgcacac gcttggtat caagctcatg
 960
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 1020
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 1080
 ttctacaacc gcctgttctc cgttccttct gtcttcacac cagccgtcga caccaaggcc
 1140
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 1200
 ttcccctcca ctgtcagcac tgtgtacagg tgtgtgtggg tgtgtgcggg ggggtgcgcg
 1260
 gtgtgtgctg tgtgcgggtg tgtgcgggtg gtgagctcac cactcgtgct caggccaggg
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 1380
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 1405

<210> 4326

<211> 336

<212> PRT

<213> Homo sapiens

<400> 4326

Met	Phe	Phe	Leu	Pro	Gln	Val	Leu	Leu	Ala	Trp	Ser	Gly	Gly	Pro	Ser
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Ser	Ser	Ser	Met	Val	Trp	Gln	Val	Leu	Glu	Gly	Leu	Ser	Gln	Asp	Ser

20	25	30
Ala Lys Arg Leu Arg Phe Val	Ala Gly Val Ile Phe Val	Asp Glu Gly
35	40	45
Ala Ala Cys Gly Gln Ser Leu	Glu Glu Arg Ser Lys Thr	Leu Ala Glu
50	55	60
Val Lys Pro Ile Leu Gln Ala	Thr Gly Phe Pro Trp His	Val Val Ala
65	70	75
Leu Glu Glu Val Phe Ser Leu	Pro Pro Ser Val Leu Trp	Cys Ser Ala
85	90	95
Gln Glu Leu Val Gly Ser Glu	Gly Ala Tyr Lys Ala Ala	Val Asp Ser
100	105	110
Phe Leu Gln Gln Gln Tyr Val	Leu Gly Ala Gly Gly Gly	Pro Gly Pro
115	120	125
Thr Gln Gly Glu Glu Gln Pro	Gln Pro Pro Leu Asp	Pro Gln Asn
130	135	140
Leu Ala Arg Pro Pro Ala Pro	Ala Gln Thr Glu Ala Leu	Ser Gln Leu
145	150	155
Phe Cys Ser Val Arg Thr Leu	Thr Ala Lys Glu Glu Leu	Leu Gln Thr
165	170	175
Leu Arg Thr His Leu Ile Leu	His Met Ala Arg Ala His	Gly Tyr Ser
180	185	190
Lys Val Met Thr Gly Asp Ser	Cys Thr Arg Leu Ala Ile	Lys Leu Met
195	200	205
Thr Asn Leu Ala Leu Gly Arg	Gly Ala Phe Leu Ala Trp	Asp Thr Gly
210	215	220
Phe Ser Asp Glu Arg His Gly	Asp Val Val Val Arg Pro	Met Arg
225	230	235
Asp His Thr Leu Lys Glu Val	Ala Phe Tyr Asn Arg Leu	Phe Ser Val
245	250	255
Pro Ser Val Phe Thr Pro Ala	Val Asp Thr Lys Ala Pro	Glu Lys Ala
260	265	270
Ser Ile His Arg Leu Met Glu	Ala Phe Ile Leu Arg Leu	Gln Thr Gln
275	280	285
Phe Pro Ser Thr Val Ser Thr	Val Tyr Arg Cys Val Trp	Val Cys Ala
290	295	300
Gly Gly Ala Arg Val Cys Ala	Val Cys Gly Cys Val Arg	Val Val Ser
305	310	315
Ser Pro Leu Val Leu Arg Pro	Gly Leu Arg Val Glu Pro	Gln Pro Val
325	330	335

<210> 4327

<211> 551

<212> DNA

<213> Homo sapiens

<400> 4327

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 120
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 180
 aggggcaagc agggctcacc ctgactggct caattcccag gcaccccat gagccaggc
 240

accgcctgcc accctcactc tccaggaaga gccaccgcgt ggtggccggg atcgtgtggt
 300
 ggccagggcg tctgaccttg gctctcaccg ggaggccatc caggtgctga ggatggctaa
 360
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 420
 acctctggga gaggagggtg actccgacag cccttgcttg ccaggatgga gcttggactc
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 ccgcatcatg a
 551

<210> 4328

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4328

Met	Pro	Ser	Arg	Val	Gln	Ala	Pro	Ser	Trp	Gln	Ala	Arg	Ala	Val	Gly
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Val	Thr	Leu	Leu	Ser	Gln	Arg	Trp	Val	Cys	Pro	Ile	Val	Val	Ser	Arg
		20						25				30			
Ala	Thr	Ser	Ser	Pro	Trp	Leu	Cys	Gly	Leu	Ser	Val	Ser	His	Pro	Gln
		35					40					45			
His	Leu	Asp	Gly	Leu	Arg	Val	Arg	Ala	Lys	Val	Arg	Arg	Pro	Gly	His
	50					55					60				
His	Thr	Ile	Pro	Ala	Thr	Thr	Arg	Trp	Leu	Phe	Leu	Glu	Ser	Glu	Gly
65					70					75				80	
Gly	Arg	Arg	Cys	Leu	Gly	Ser	Trp	Gly	Cys	Leu	Gly	Ser	Glu	Pro	Val
			85						90					95	
Arg	Val	Ser	Pro	Ala	Cys	Pro	Ser	Ile	Ser	Trp					
			100					105							

<210> 4329

<211> 3192

<212> DNA

<213> Homo sapiens

<400> 4329

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 120
 tgtacctaaa actttggctc gaaagcgaat ctggaataaa aagtacccca tttgtatcga
 180
 gcttggtcag caagatgact ttatgtctaa agctcagact gataaggaga cttcagaaga
 240
 gaagccgcca gctggaggaa gggaggaccc ttagaagcca ccccgccctc aggaggaaca
 300
 agatctagcc agcgagatca gatactctat ctctttggga gaactggccg agaaaaagag
 360
 gaatggttta ggagatttat tctggcatct aagctaaagt cggaaatcaa gaagtcacgc
 420

gggtgtctctg gaggtaaacc agggcttttg cctgcacaca gcagacacaa cagtccgtcc
480
gggcacctga cccacagccg cagcagcagc aaaggcagtg tggaggagat catgtcacag
540
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600
tacatgggca ggtgtgtccc ccaggaaagc cgaagcccc agaggagccc cctgcagagt
660
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720
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2040

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 2700
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 2760
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 2820
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 2880
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 3192

<210> 4330

<211> 371

<212> PRT

<213> Homo sapiens

<400> 4330

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 20 25 30
 Ser Arg Ser Pro Gln Arg Ser Pro Leu Gln Ser Ala Glu Ser Ser Pro
 35 40 45
 Thr Ala Gly Lys Lys Leu Pro Glu Val Pro Pro Ser Glu Glu Glu Glu

50 55 60
 Gln Glu Ala Trp Val Asn Ala Leu Leu Gly Arg Ile Phe Trp Asp Phe
 65 70 75 80
 Leu Gly Glu Lys Tyr Trp Ser Asp Leu Val Ser Lys Lys Ile Gln Met
 85 90 95
 Lys Leu Ser Lys Ile Lys Leu Pro Tyr Phe Met Asn Glu Leu Thr Leu
 100 105 110
 Thr Glu Leu Asp Met Gly Val Ala Val Pro Lys Ile Leu Gln Ala Phe
 115 120 125
 Lys Pro Tyr Val Asp His Gln Gly Leu Trp Ile Asp Leu Glu Met Ser
 130 135 140
 Tyr Asn Gly Ser Phe Leu Met Thr Leu Glu Thr Lys Met Asn Leu Pro
 145 150 155 160
 Lys Leu Gly Lys Glu Pro Leu Val Glu Ala Leu Lys Val Gly Glu Ile
 165 170 175
 Gly Lys Glu Gly Cys Arg Pro Arg Ala Phe Cys Leu Ala Asp Ser Asp
 180 185 190
 Glu Glu Ser Ser Ser Ala Gly Ser Ser Glu Glu Asp Asp Ala Pro Glu
 195 200 205
 Pro Ala Gly Glu Thr Asn Ser Ser Ser Gln Gly Glu Gly Tyr Val Gly
 210 215 220
 Gly His Arg Thr Ser Lys Ile Met Arg Phe Val Asp Lys Ile Thr Lys
 225 230 235 240
 Ser Lys Tyr Phe Gln Lys Ala Thr Glu Thr Glu Phe Ile Lys Arg Xaa
 245 250 255
 Ile Glu Glu Val Ser Asn Thr Pro Leu Leu Leu Thr Val Glu Val Gln
 260 265 270
 Glu Cys Arg Gly Thr Leu Ala Val Asn Ile Pro Pro Pro Pro Thr Asp
 275 280 285
 Arg Val Trp Tyr Gly Phe Arg Lys Pro Pro His Val Glu Leu Lys Ala
 290 295 300
 Arg Pro Lys Leu Gly Glu Arg Glu Val Thr Leu Val His Val Thr Asp
 305 310 315 320
 Trp Ile Glu Lys Lys Leu Glu Gln Glu Phe Gln Lys Val Phe Val Met
 325 330 335
 Pro Asn Met Asp Asp Val Tyr Ile Thr Ile Met His Ser Ala Met Asp
 340 345 350
 Pro Arg Ser Thr Ser Cys Leu Leu Lys Asp Pro Pro Val Glu Ala Ala
 355 360 365
 Asp Arg Pro
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<210> 4331

<211> 1355

<212> DNA

<213> Homo sapiens

<400> 4331

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120

gatttaaatg agcctttgca cctcagtttc cttcagaatg ctgcaaaact atatgtaca

180

gtatattgta ttccatttgc agaagaggac ttatcagcag atgccctctt gaatattctt
 240
 tcagaagtaa agattcagga attcaagcct tccaataagg ttgttcaaac agatgaaact
 300
 gcaaggaaac cagaccatgt tcctattagc agtgaagatg agaggaatgc aattttccaa
 360
 ctagaaaagg ctattttatc taatgaagcc accaaaagtg accttcagat ggcagtgtt
 420
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 480
 cttctgtcca aaatgtacag cattgaacca gctgaccgtt tcaaaaacaa gcgcatagct
 540
 ggtaaaatta tacctgctat agcaacaacc actgctacag tttctggctt ggttgccttg
 600
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 660
 ttagccattc caattgtagt atttacagag acaactgaag taaggaaaac taaaatcaga
 720
 aatggaatat catttacaat ttgggatcga tggaccgtac atggaaaaga agatttcacc
 780
 ctcttggtt tcataaatgc agtcaaagag aagtatggaa ttgagccaac aatggtggta
 840
 cagggagtca aaatgcttta tgttctgtga atgcttggtc atgcaaaaag attgaagtta
 900
 acaatgcata aacttgtaaa acctactact gaaaagaaat atgtggatct tactgtgtca
 960
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 1020
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 1320
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 1355

<210> 4332

<211> 345

<212> PRT

<213> Homo sapiens

<400> 4332

Glu	Lys	Tyr	Phe	Asn	His	Lys	Ala	Leu	Gln	Leu	Leu	His	Cys	Phe	Pro
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Leu	Asp	Ile	Arg	Leu	Lys	Asp	Gly	Ser	Leu	Phe	Trp	Gln	Ser	Pro	Lys
			20				25					30			
Arg	Pro	Pro	Ser	Pro	Ile	Lys	Phe	Asp	Leu	Asn	Glu	Pro	Leu	His	Leu
		35				40					45				
Ser	Phe	Leu	Gln	Asn	Ala	Ala	Lys	Leu	Tyr	Ala	Thr	Val	Tyr	Cys	Ile

50 55 60
 Pro Phe Ala Glu Glu Asp Leu Ser Ala Asp Ala Leu Leu Asn Ile Leu
 65 70 75 80
 Ser Glu Val Lys Ile Gln Glu Phe Lys Pro Ser Asn Lys Val Val Gln
 85 90 95
 Thr Asp Glu Thr Ala Arg Lys Pro Asp His Val Pro Ile Ser Ser Glu
 100 105 110
 Asp Glu Arg Asn Ala Ile Phe Gln Leu Glu Lys Ala Ile Leu Ser Asn
 115 120 125
 Glu Ala Thr Lys Ser Asp Leu Gln Met Ala Val Leu Ser Phe Glu Lys
 130 135 140
 Asp Asp Asp His Asn Gly His Ile Asp Phe Ile Thr Ala Ala Ser Asn
 145 150 155 160
 Leu Arg Ala Lys Met Tyr Ser Ile Glu Pro Ala Asp Arg Phe Lys Thr
 165 170 175
 Lys Arg Ile Ala Gly Lys Ile Ile Pro Ala Ile Ala Thr Thr Thr Ala
 180 185 190
 Thr Val Ser Gly Leu Val Ala Leu Glu Met Ile Lys Val Thr Gly Gly
 195 200 205
 Tyr Pro Phe Glu Ala Tyr Lys Asn Cys Phe Leu Asn Leu Ala Ile Pro
 210 215 220
 Ile Val Val Phe Thr Glu Thr Thr Glu Val Arg Lys Thr Lys Ile Arg
 225 230 235 240
 Asn Gly Ile Ser Phe Thr Ile Trp Asp Arg Trp Thr Val His Gly Lys
 245 250 255
 Glu Asp Phe Thr Leu Leu Asp Phe Ile Asn Ala Val Lys Glu Lys Tyr
 260 265 270
 Gly Ile Glu Pro Thr Met Val Val Gln Gly Val Lys Met Leu Tyr Val
 275 280 285
 Pro Val Met Pro Gly His Ala Lys Arg Leu Lys Leu Thr Met His Lys
 290 295 300
 Leu Val Lys Pro Thr Thr Glu Lys Lys Tyr Val Asp Leu Thr Val Ser
 305 310 315 320
 Phe Ala Pro Asp Ile Asp Gly Asp Glu Asp Leu Pro Gly Pro Pro Val
 325 330 335
 Arg Tyr Tyr Phe Ser His Asp Thr Asp
 340 345

<210> 4333

<211> 1278

<212> DNA

<213> Homo sapiens

<400> 4333

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 120

cggaagcccc ccgcgtctc ccgagtgtcc aggatgtttt ccgtggtca cccagccgccc
 180

aaggtgccgc agcccgagcg gctggacctg gtgtacacgg cgctgaagcg gggcctgacg
 240

gcctacttgg aagtgcacca gcaggagcaa gagaaactcc aggggcagat aaggaggtcc
 300

aagaggaatt cccgcttggg cttcctgtat gatctggaca agcaagtcaa gtccattgaa
 360
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 660
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 720
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 780
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 aacctgtgtg ttgtgggcag tgtctcctgt gagaccaagg acctgtttgc cgcctgccc
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<210> 4334

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4334

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Phe	Ala	Gly	Val	Leu	Gly	Ser	His	Glu	Arg	Gly	Pro	Arg	Ser	Phe	Pro
			20					25					30		
Val	Phe	Ser	Pro	Pro	Gly	Pro	Pro	Arg	Lys	Pro	Pro	Ala	Leu	Ser	Arg
		35				40						45			
Val	Ser	Arg	Met	Phe	Ser	Val	Ala	His	Pro	Ala	Ala	Lys	Val	Pro	Gln
		50				55					60				
Pro	Glu	Arg	Leu	Asp	Leu	Val	Tyr	Thr	Ala	Leu	Lys	Arg	Gly	Leu	Thr
65					70					75				80	
Ala	Tyr	Leu	Glu	Val	His	Gln	Gln	Glu	Gln	Lys	Leu	Gln	Gly	Gln	
				85				90					95		
Ile	Arg	Glu	Ser	Lys	Arg	Asn	Ser	Arg	Leu	Gly	Phe	Leu	Tyr	Asp	Leu

	100		105		110										
Asp	Lys	Gln	Val	Lys	Ser	Ile	Glu	Arg	Phe	Leu	Arg	Arg	Leu	Glu	Phe
	115		120		125										
His	Ala	Ser	Lys	Ile	Asp	Glu	Leu	Tyr	Glu	Ala	Tyr	Cys	Val	Gln	Arg
	130		135		140										
Arg	Leu	Arg	Asp	Gly	Ala	Tyr	Asn	Met	Val	Arg	Ala	Tyr	Thr	Thr	Gly
145			150		155										160
Ser	Pro	Gly	Ser	Arg	Glu	Ala	Arg	Asp	Ser	Leu	Ala	Glu	Ala	Thr	Arg
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Gly	His	Arg	Glu	Tyr	Thr	Glu	Val	Gly	Asp	Gly	Gly	Pro			
	180						185								

<210> 4335

<211> 1211

<212> DNA

<213> Homo sapiens

<400> 4335

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180
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240
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300
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420
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480
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540
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660
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720
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780
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840
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900
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<210> 4336

<211> 325

<212> PRT

<213> Homo sapiens

<400> 4336

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Cys	Arg	Cys	Arg	Ala	Glu	Glu	Leu	Gly	Arg	Gly	Ile	Ala	Leu	Phe	Gln
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Gly	Leu	Ser	Asn	Ile	Ala	Phe	Asn	Cys	Met	Val	Leu	Gly	Thr	Leu	Phe
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Ile	Gly	Gly	Ser	Leu	Val	Ala	Gly	Gln	Gln	Leu	Thr	Gly	Gly	Asp	Leu
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Met	Ser	Phe	Leu	Val	Ala	Ser	Gln	Thr	Val	Gln	Ser	Phe	Leu	Arg	Val
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<210> 4337

<211> 461

<212> DNA

<213> Homo sapiens

<400> 4337

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<210> 4338

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<212> PRT

<213> Homo sapiens

<400> 4338

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 Arg Arg Glu Gly Ala Thr Cys Cys Ser Val Glu Lys Gln Gln Ser Pro
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 Cys Gly Arg Glu Gly Gln Ala Arg Trp Pro Ala Arg Asp Val Val Phe
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<210> 4339

<211> 5269

<212> DNA

<213> Homo sapiens

<400> 4339

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<210> 4340

<211> 1088

<212> PRT

<213> Homo sapiens

<400> 4340

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		20						25					30		
Gly	Pro	Glu	Pro	Glu	Arg	Pro	Ser	Pro	Gly	Asp	Gly	Asn	Pro	Arg	Glu
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Asn	Ser	Pro	Phe	Leu	Asn	Asn	Val	Glu	Val	Glu	Gln	Glu	Ser	Phe	Phe
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Glu	Gly	Lys	Asn	Met	Ala	Leu	Phe	Glu	Glu	Glu	Met	Asp	Ser	Asn	Pro
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Met	Val	Ser	Ser	Leu	Asn	Lys	Leu	Ala	Asn	Tyr	Thr	Asn	Leu	Ser	
			85					90					95		
Gln	Gly	Val	Val	Glu	His	Glu	Glu	Asp	Glu	Glu	Ser	Arg	Arg	Arg	Glu
			100					105					110		
Ala	Lys	Ala	Pro	Arg	Met	Gly	Thr	Phe	Ile	Gly	Val	Tyr	Leu	Pro	Cys
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Leu	Gln	Asn	Ile	Leu	Gly	Val	Ile	Leu	Phe	Leu	Arg	Leu	Thr	Trp	Ile
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Val	Gly	Val	Ala	Gly	Val	Leu	Glu	Ser	Phe	Leu	Ile	Val	Ala	Met	Cys
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Cys	Thr	Cys	Thr	Met	Leu	Thr	Ala	Ile	Ser	Met	Ser	Ala	Ile	Ala	Thr
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Thr	Thr	Phe	Ala	Gly	Ala	Met	Tyr	Ile	Leu	Gly	Thr	Ile	Glu	Ile	Phe
		210				215					220				
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Gly	Gly	Glu	Ala	Ala	Ala	Met	Leu	His	Asn	Met	Arg	Val	Tyr	Gly	Thr
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Ala Leu Trp Gly Leu Phe Cys Asn Gly Ser Gln Pro Ser Ala Ala Cys		
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Gly Ala Ala Ser Gly Val Phe Leu Glu Asn Leu Trp Ser Thr Tyr Ala		
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Ala Glu Glu Ser Arg Ala Ser Ala Leu Pro Tyr Val Leu Thr Asp Ile		
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Ala Ala Ser Phe Thr Leu Leu Val Gly Ile Tyr Phe Pro Ser Val Thr		
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Lys Ser Ile Pro Thr Gly Thr Ile Leu Ala Ile Val Thr Thr Ser Phe		
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Ile Tyr Leu Ser Cys Ile Val Leu Phe Gly Ala Cys Ile Glu Gly Val		
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Val Leu Arg Asp Lys Phe Gly Glu Ala Leu Gln Gly Asn Leu Val Ile		
485	490	495
Gly Met Leu Ala Trp Pro Ser Pro Trp Val Ile Val Ile Gly Ser Phe		
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Phe Ser Thr Cys Gly Ala Gly Leu Gln Thr Leu Thr Gly Ala Pro Arg		
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Leu Leu Gln Ala Ile Ala Arg Asp Gly Ile Val Pro Phe Leu Gln Val		
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Pro Arg Phe Lys Phe Tyr His Trp Thr Leu Ser Phe Leu Gly Met Ser		
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690	695	700
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Leu Arg Gln His Lys Val Trp Arg Lys Cys Arg Met Arg Ile Phe Thr		
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Glu Gln Glu Arg Glu Ala Gln Leu Ile His Asp Arg Asn Thr Ala Ser		
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His Thr Ala Ala Ala Ala Arg Thr Gln Ala Pro Pro Thr Pro Asp Lys		
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Pro Glu Trp Gly Asn Leu Asp Gln Ser Asn Val Arg Arg Met His Thr		
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Ala Val Lys Leu Asn Gly Val Val Leu Asn Lys Ser Gln Asp Ala Gln		
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Leu Val Leu Leu Asn Met Pro Gly Pro Pro Lys Asn Arg Gln Gly Asp		
	1045	1050
Glu Asn Tyr Met Glu Phe Leu Glu Val Leu Thr Glu Gly Leu Asn Arg		
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<210> 4341

<211> 693

<212> DNA

<213> Homo sapiens

<400> 4341

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<210> 4342

<211> 103

<212> PRT

<213> Homo sapiens

<400> 4342

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Arg	Gly	Gln	Ser	Ser	Arg	Gly	Trp	Asn	Ala	Ser	Leu	Gly	Leu	Gly	Glu
		20					25					30			
Lys	Glu	Gly	Leu	Val	Ser	Val	Gly	Ile	Thr	Gln	Lys	Arg	Ala	Leu	Tyr
		35					40					45			
Met	Phe	Ser	Tyr	Lys	Tyr	Ser	Val	Met	Glu	Lys	His	Ser	Leu	Asp	Ala
	50					55					60				
Tyr	Gly	Ser	Leu	Arg	Ser	Phe	Phe	Phe	His	Pro	Leu	Phe	Leu	Glu	Lys
65				70					75				80		
Lys	Phe	Phe	Lys	Ala	Tyr	Asn	Leu	Lys	Ser	Thr	Ser	Thr	Tyr	Ser	Arg
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Asn	Ile	Val	Ala	Phe	Ser	Ile									
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<210> 4343

<211> 499

<212> DNA

<213> Homo sapiens

<400> 4343

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 360
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 499

<210> 4344

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4344

Met	Ala	Pro	Ser	Arg	Pro	Arg	Leu	Pro	Pro	Ser	Pro	Pro	Gln	Arg	Leu
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Arg	Val	Val	Arg	Gly	Arg	Gly	Pro	Phe	Ala	Phe	Arg	Thr	Gly	Arg	Pro
			20					25					30		
Thr	Leu	Gly	Ala	Trp	Thr	Glu	Ser	Ser	Gly	Gly	Arg	Ala	Ala	Gly	Pro
		35					40					45			
Gly	Gly	Glu	Arg	Arg	Thr	Asp	Phe	Arg	Gly	Gly	Pro	Gly	His	Ala	Ala
	50					55					60				
Glu	Thr	Thr	Arg	Leu	Pro	Gly	Gly	Gly	Gln	Asp	Arg	Pro	Cys	Pro	Asp
65				70					75					80	
Lys	Met	Glu	Phe	Pro	Val	Trp	Leu	Gln	Leu	Ala	Ala	Arg	Ser	Gln	Ser
			85					90					95		
Ser	Ser	Val	Ile	Arg	Leu	Ser	Asp	Cys	Ser	Pro	Phe	Ile	Ser	Phe	Ala
			100					105					110		
Val	Val	Gln	Ile	Leu	Ile										
			115												

<210> 4345

<211> 349

<212> DNA

<213> Homo sapiens

<400> 4345

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 120
 cgtctgcatg agcagaagct ggtgcagcat gtggtgtctc agaactgtga cgggctccac
 180

ctgaggagtg ggctgncgcg cacggccatc tccgagctcc acggaacat gtacattgaa
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 ggagtacgtg cgggtgttcg atgtgacgga ggcactgcc ctccacagac accagacagg
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 349

<210> 4346
 <211> 116
 <212> PRT
 <213> Homo sapiens

<400> 4346
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 20 25 30
 Thr Leu Thr His Met Ser Ile Thr Arg Leu His Glu Gln Lys Leu Val
 35 40 45
 Gln His Val Val Ser Gln Asn Cys Asp Gly Leu His Leu Arg Ser Gly
 50 55 60
 Leu Xaa Arg Thr Ala Ile Ser Glu Leu His Gly Asn Met Tyr Ile Glu
 65 70 75 80
 Gly Val Arg Ala Gly Val Arg Cys Asp Gly Ala His Cys Pro Pro Gln
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 Thr Pro Asp Arg Pro Asp Leu Pro Gln Val Trp Asp Pro Ala Ala Gly
 100 105 110
 His His Cys Ala
 115

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 <211> 353
 <212> DNA
 <213> Homo sapiens

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<210> 4348
 <211> 72
 <212> PRT
 <213> Homo sapiens

<400> 4348

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 20 25 30
 Arg Gln Cys Arg Gly Arg Ser Arg Arg Val Ala Arg Ser Ser Leu
 35 40 45
 Pro Ser Pro Ser Ala Arg Pro Gly Arg Gly Gly Arg Pro Gly Pro Gly
 50 55 60
 Gly Ser Ala Gly Cys Pro Gly Leu
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<210> 4349

<211> 2040

<212> DNA

<213> Homo sapiens

<400> 4349

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<211> 113

<212> PRT

<213> Homo sapiens

<400> 4350

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Ile	Arg	Thr	Gln	His	Gly	Pro	His	Gly	Gly	Gln	Val	Ala	Gly	Gly	Pro
			20					25					30		
Phe	Pro	Pro	Leu	Ala	His	Ala	Pro	Leu	Thr	Gly	Thr	Arg	Pro	Ser	Cys
		35					40					45			
Gly	Pro	Arg	Leu	Trp	His	Gly	Thr	Cys	Pro	Ser	Ala	Gln	His	Gly	Pro
		50				55					60				
Gly	Ala	Thr	Leu	Leu	Ala	Glu	Gly	Gln	Gly	Pro	Leu	Cys	Arg	Gln	Trp
65					70				75					80	
Gly	Gly	Gly	Pro	Arg	Phe	Pro	Asp	Arg	Gly	Arg	Gln	Gly	Thr	Gly	Glu
			85					90					95		
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<210> 4351
<211> 4703
<212> DNA
<213> Homo sapiens

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<210> 4352

<211> 86

<212> PRT

<213> Homo sapiens

<400> 4352

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			20					25					30	
Leu	Gln	Pro	Pro	Pro	Pro	Gly	Phe	Glu	Leu	Phe	Ser	Cys	Leu	Ser
		35				40					45			
Gln	Ser	Ser	Trp	Gly	Tyr	Arg	His	Ser	Pro	Pro	Arg	Leu	Ala	Asn
	50					55					60			
Ser	Ile	Phe	Ser	Arg	Asp	Gly	Val	Ser	Pro	Cys	Trp	Pro	Gly	Trp
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Gln	Thr	Pro	Asn	Leu	Lys									
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<210> 4353

<211> 2471

<212> DNA

<213> Homo sapiens

<400> 4353

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<211> 586

<212> PRT

<213> Homo sapiens

<400> 4354

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Gln	Tyr	Ile	Ser	Ser	Val	Pro	Trp	Tyr	Ile	Asp	Pro	Ser	Lys	Arg	Pro
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Thr	Leu	Lys	His	Gln	Arg	Pro	Gln	Pro	Glu	Lys	Gln	Lys	Gln	Phe	Ser
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Ser	Ser	Gly	Glu	Trp	Tyr	Lys	Arg	Gly	Val	Lys	Glu	Asn	Ser	Ile	Ile
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Thr	Gly	Thr	Asn	Ile	Ala	Pro	Asp	Glu	His	Val	Gln	Pro	Gln	Leu	Met
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Asp	Lys	Tyr	Ala	Asp	Asp	Ile	Asp	Met	Pro	Gly	Gln	Asn	Phe	Asp	Ser
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Lys	Arg	Arg	Ile	Thr	Val	Arg	Asn	Leu	Arg	Ile	Arg	Glu	Asp	Ile	Ala
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Lys	Tyr	Leu	Arg	Asn	Leu	Asp	Pro	Asn	Ser	Ala	Tyr	Tyr	Asp	Pro	Lys
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Thr	Arg	Ala	Met	Arg	Glu	Asn	Pro	Tyr	Ala	Asn	Ala	Gly	Lys	Asn	Pro
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Asp	Glu	Val	Ser	Tyr	Ala	Gly	Asp	Asn	Phe	Val	Arg	Tyr	Thr	Gly	Asp
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Thr	Ile	Ser	Met	Ala	Gln	Thr	Gln	Leu	Phe	Ala	Trp	Glu	Ala	Tyr	Asp

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 Lys Gly Ser Glu Val His Leu Gln Ala Asp Pro Thr Lys Leu Glu Leu
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 355 360 365
 Lys Glu Ser Ile Leu Glu Lys Tyr Gly Gly Gln Glu His Leu Asp Ala
 370 375 380
 Pro Pro Ala Glu Leu Leu Leu Ala Gln Thr Glu Asp Tyr Val Glu Tyr
 385 390 395 400
 Ser Arg His Gly Thr Val Ile Lys Gly Gln Glu Arg Ala Val Ala Cys
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 Ser Lys Tyr Glu Glu Asp Val Lys Ile His Asn His Thr His Ile Trp
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 Lys Lys Pro Gln Thr Leu Met Glu Leu His Gln Glu Lys Leu Lys Glu
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 Glu Lys Lys Lys Lys Lys Lys Lys Lys Lys His Arg Lys Ser Ser
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 Ser Asp Ser Asp Asp Glu Glu Lys Lys His Glu Lys Leu Lys Lys Ala
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 Leu Asn Ala Glu Glu Ala Arg Leu Leu His Val Lys Glu Thr Met Gln
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 Ile Asp Glu Arg Lys Arg Pro Tyr Asn Ser Met Tyr Glu Thr Arg Glu
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<210> 4355

<211> 1741

<212> DNA

<213> Homo sapiens

<400> 4355

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<210> 4356

<211> 509

<212> PRT

<213> Homo sapiens

<400> 4356

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35	40	45	
Gly Leu Ala Ala Lys Gln Ser Arg Ile Arg Asn Ile Ser Asn Thr Val			
50	55	60	
Met Lys Val Lys Gln Ile Leu Gly Arg Ser Ser Asp Pro Gln Ala			
65	70	75	80
Gln Lys Tyr Ile Ala Glu Ser Lys Cys Leu Val Ile Glu Lys Asn Gly			
85	90	95	
Lys Leu Arg Tyr Glu Ile Asp Thr Gly Glu Glu Thr Lys Phe Val Asn			
100	105	110	
Pro Glu Asp Val Ala Arg Leu Ile Phe Ser Lys Met Lys Glu Thr Ala			
115	120	125	
His Ser Val Leu Gly Ser Asp Ala Asn Asp Val Val Ile Thr Val Pro			
130	135	140	
Phe Asp Phe Gly Glu Lys Gln Lys Asn Ala Leu Gly Glu Ala Ala Arg			
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Ala Ala Gly Phe Asn Val Leu Arg Leu Ile His Glu Pro Ser Ala Ala			
165	170	175	
Leu Leu Ala Tyr Gly Ile Gly Gln Asp Ser Pro Thr Gly Lys Ser Asn			
180	185	190	
Ile Leu Val Phe Lys Leu Gly Gly Thr Ser Leu Ser Leu Ser Val Met			
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Glu Val Asn Ser Gly Ile Tyr Arg Val Leu Ser Thr Asn Thr Asp Asp			
210	215	220	
Asn Ile Gly Gly Ala His Phe Thr Glu Thr Leu Ala Gln Tyr Leu Ala			
225	230	235	240
Ser Glu Phe Gln Arg Ser Phe Lys His Asp Val Arg Gly Asn Ala Arg			
245	250	255	
Ala Met Met Lys Leu Thr Asn Ser Ala Glu Val Ala Lys His Ser Leu			
260	265	270	
Ser Thr Leu Gly Ser Ala Asn Cys Phe Leu Asp Ser Leu Tyr Glu Gly			
275	280	285	
Gln Asp Phe Asp Cys Asn Val Ser Arg Ala Arg Phe Glu Leu Leu Cys			
290	295	300	
Ser Pro Leu Phe Asn Lys Cys Ile Glu Ala Ile Arg Gly Leu Leu Asp			
305	310	315	320
Gln Asn Gly Phe Thr Ala Asp Asp Ile Asn Lys Val Val Leu Cys Gly			
325	330	335	
Gly Ser Ser Arg Ile Pro Lys Leu Gln Gln Leu Ile Lys Asp Leu Phe			
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Pro Ala Val Glu Leu Leu Asn Ser Ile Pro Pro Asp Glu Val Ile Pro			
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Ile Gly Ala Ala Ile Glu Ala Gly Ile Leu Ile Gly Lys Glu Asn Leu			
370	375	380	
Leu Val Glu Asp Ser Leu Met Ile Glu Cys Ser Ala Arg Asp Ile Leu			
385	390	395	400
Val Lys Gly Val Asp Glu Ser Gly Ala Ser Arg Phe Thr Val Leu Phe			
405	410	415	
Pro Ser Gly Thr Pro Leu Pro Ala Arg Arg Gln His Thr Leu Gln Ala			
420	425	430	
Pro Gly Ser Ile Ser Ser Val Cys Leu Glu Leu Tyr Glu Ser Asp Gly			

435 440 445
 Lys Asn Ser Ala Lys Glu Glu Thr Lys Phe Ala Gln Val Val Leu Gln
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 Asp Leu Asp Lys Lys Glu Asn Gly Leu Arg Asp Ile Leu Ala Val Leu
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<210> 4357

<211> 421

<212> DNA

<213> Homo sapiens

<400> 4357

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<210> 4358

<211> 115

<212> PRT

<213> Homo sapiens

<400> 4358

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 35 40 45
 Gly Leu Pro Pro Arg Phe Ser Ser Pro Thr Pro Leu Trp Arg Lys Val
 50 55 60
 Leu Ser Thr Ala Val Val Gly Ala Pro Leu Leu Gly Ala Arg Tyr
 65 70 75 80
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<210> 4359

<211> 3661

<212> DNA

<213> Homo sapiens

<400> 4359

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<210> 4360

<211> 670

<212> PRT

<213> Homo sapiens

<400> 4360

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Thr	Phe	Gly	Pro	Ala	Phe	Ser	Ala	Val	Thr	Thr	Ile	Thr	Lys	Ala	Asp
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Gly	Thr	Ser	Thr	Tyr	Lys	Gln	His	Cys	Arg	Thr	Pro	Ser	Ser	Ser	Ser
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Thr	Leu	Ala	Tyr	Ser	Pro	Arg	Asp	Glu	Glu	Asp	Ser	Met	Pro	Pro	Ile
65					70					75					80
Ser	Thr	Pro	Arg	Arg	Ser	Asp	Ser	Ala	Ile	Ser	Val	Arg	Ser	Leu	His
			85						90					95	
Ser	Glu	Ser	Ser	Met	Ser	Leu	Arg	Ser	Thr	Phe	Ser	Leu	Pro	Glu	Glu
			100					105					110		
Glu	Glu	Glu	Pro	Glu	Pro	Leu	Val	Phe	Ala	Glu	Gln	Pro	Ser	Val	Lys
	115						120					125			
Leu	Cys	Cys	Gln	Leu	Cys	Cys	Ser	Val	Phe	Lys	Asp	Pro	Val	Ile	Thr
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Thr	Cys	Gly	His	Thr	Phe	Cys	Arg	Arg	Cys	Ala	Leu	Lys	Ser	Glu	Lys
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Cys	Pro	Val	Asp	Asn	Val	Lys	Leu	Thr	Val	Val	Val	Asn	Asn	Ile	Ala
			165					170						175	
Val	Ala	Glu	Gln	Ile	Gly	Glu	Leu	Phe	Ile	His	Cys	Arg	His	Gly	Cys

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195	200	205
Gly Cys Pro Phe Thr Ile Lys Leu Ser Ala Arg Lys Asp His Glu Gly		
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Ser Cys Asp Tyr Arg Pro Val Arg Cys Pro Asn Asn Pro Ser Cys Pro		
225	230	235
Pro Leu Leu Arg Met Asn Leu Glu Ala His Leu Lys Glu Cys Glu His		
245	250	255
Ile Lys Cys Pro His Ser Lys Tyr Gly Cys Thr Phe Ile Gly Asn Gln		
260	265	270
Asp Thr Tyr Glu Thr His Leu Glu Thr Cys Arg Phe Glu Gly Leu Lys		
275	280	285
Glu Phe Leu Gln Gln Thr Asp Arg Phe His Glu Met His Val Ala		
290	295	300
Leu Ala Gln Lys Asp Gln Glu Ile Ala Phe Leu Arg Ser Met Leu Gly		
305	310	315
Lys Leu Ser Glu Lys Ile Asp Gln Leu Glu Lys Ser Leu Glu Leu Lys		
325	330	335
Phe Asp Val Leu Asp Glu Asn Gln Ser Lys Leu Ser Glu Asp Leu Met		
340	345	350
Glu Phe Arg Arg Asp Ala Ser Met Leu Asn Asp Glu Leu Ser His Ile		
355	360	365
Asn Ala Arg Leu Asn Met Gly Ile Leu Gly Ser Tyr Asp Pro Gln Gln		
370	375	380
Ile Phe Lys Cys Lys Gly Thr Phe Val Gly His Gln Gly Pro Val Trp		
385	390	395
Cys Leu Cys Val Tyr Ser Met Gly Asp Leu Leu Phe Ser Gly Ser Ser		
405	410	415
Asp Lys Thr Ile Lys Val Trp Asp Thr Cys Thr Thr Tyr Lys Cys Gln		
420	425	430
Lys Thr Leu Glu Gly His Asp Gly Ile Val Leu Ala Leu Cys Ile Gln		
435	440	445
Gly Cys Lys Leu Tyr Ser Gly Ser Ala Asp Cys Thr Ile Ile Val Trp		
450	455	460
Asp Ile Gln Asn Leu Gln Lys Val Asn Thr Ile Arg Ala His Asp Asn		
465	470	475
Pro Val Cys Thr Leu Val Ser Ser His Asn Val Leu Phe Ser Gly Ser		
485	490	495
Leu Lys Ala Ile Lys Val Trp Asp Ile Val Gly Thr Glu Leu Lys Leu		
500	505	510
Lys Lys Glu Leu Thr Gly Leu Asn His Trp Val Arg Ala Leu Val Ala		
515	520	525
Ala Gln Ser Tyr Leu Tyr Ser Gly Ser Tyr Gln Thr Ile Lys Ile Trp		
530	535	540
Asp Ile Arg Thr Leu Asp Cys Ile His Val Leu Gln Thr Ser Gly Gly		
545	550	555
Ser Val Tyr Ser Ile Ala Val Thr Asn His Ile Val Cys Gly Thr		
565	570	575
Tyr Glu Asn Leu Ile His Val Trp Asp Ile Glu Ser Lys Glu Gln Val		
580	585	590
Arg Thr Leu Thr Gly His Val Gly Thr Val Tyr Ala Leu Ala Val Ile		
595	600	605
Ser Thr Pro Asp Gln Thr Lys Val Phe Ser Ala Ser Tyr Asp Arg Ser		

610 615 620
 Leu Arg Val Trp Ser Met Asp Asn Met Ile Cys Thr Gln Thr Leu Leu
 625 630 635 640
 Arg His Gln Gly Ser Val Thr Ala Leu Ala Val Ser Arg Gly Arg Leu
 645 650 655
 Phe Ser Gly Ala Val Asp Ser Thr Val Lys Val Trp Thr Cys
 660 665 670

<210> 4361
 <211> 574
 <212> DNA
 <213> Homo sapiens

<400> 4361
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 120
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 180
 accgtgtaca gcacggcgga ggacgggaag gtaggcggct ccaggattca gataagagag
 240
 caccgggatg acatgtgggc cggctgcagg ttgtggccat acctgttact agctctgcaa
 300
 cctggggcct ctttttgcag ctttgttatc tgtagaatag ggataaacta gtaattcgct
 360
 ttacaatcct tgcgaggttt tagtgaattc agtgggagtt ggctatcctt atgaaaggaa
 420
 gtacaaaaaa ttactcatct taccatagat gtatctgtgg ggtctggatt tagggctgag
 480
 tttgctttgc tgggcttggg agtgagtggg cccaggacca ctcatggatg tgtagtttgc
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 574

<210> 4362
 <211> 116
 <212> PRT
 <213> Homo sapiens

<400> 4362
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 20 25 30
 Asp Met Gln Gln His Glu Cys Ala Met Ser Trp Arg Ala His Tyr Gly
 35 40 45
 Glu Val Tyr Ser Val Glu Phe Ser Tyr Asp Glu Asn Thr Val Tyr Ser
 50 55 60
 Ile Gly Glu Asp Gly Lys Val Gly Gly Ser Arg Ile Gln Ile Arg Glu
 65 70 75 80
 His Arg Asp Asp Met Trp Ala Gly Cys Arg Leu Trp Pro Tyr Leu Leu
 85 90 95
 Leu Ala Leu Gln Pro Gly Ala Ser Phe Cys Ser Phe Val Ile Cys Arg

100 105 110
Ile Gly Ile Asn
115
<210> 4363
<211> 1222
<212> DNA
<213> Homo sapiens

<400> 4363
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120
agctatgacc ccagggccag ggaattcagt cccaccaga ccctgtcatt ccatcactag
180
ggggttaattc caggctcccc ctgccagccc tgagacagga ggacggatgt gaagttgccc
240
aggactagat tctgtctctc caaagtggcc caagccctgt tctctgtact aggggaagcca
300
gctgtgtctt ttcgaggaca gttgggtccag ccagcagggt cagttcagat accagacaac
360
cattccagca cgagggctca gcgccttggc cccggcgggc gctccagtgc ctgtgtgccc
420
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480
cccggcccat cctcagggcc tggtttgagg ccctcagagg ctggtgcccc aagttcattg
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tcatacatag aggtgtcaat atcctcaaac aggcctcga gcccatcgtc cagtagacag
600
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1020
caggagtcca ctgccagagg ttccttctcc tctcctcct cccgtttccg cttcagaccc
1080
ttgctcagca tcttgctcac tagcgccaa tcagaacgaa gaggtagcca ccacaacca
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1200
tcgcgagacg cagttctagc ga
1222

<210> 4364

<211> 75
 <212> PRT
 <213> Homo sapiens

<400> 4364
 Asp Arg Arg Thr Asp Val Lys Leu Pro Arg Thr Arg Phe Cys Leu Ser
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 20 25 30
 Phe Arg Gly Gln Leu Val Gln Pro Ala Gly Ser Val Gln Ile Pro Asp
 35 40 45
 Asn His Ser Ser Thr Arg Ala Gln Arg Pro Gly Pro Gly Gly Arg Ser
 50 55 60
 Ser Ala Cys Val Pro Thr Ser Thr Ser Met Arg
 65 70 75

<210> 4365
 <211> 469
 <212> DNA
 <213> Homo sapiens

<400> 4365
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 120
 gtcaccgacg acatcaagcc ggggtgtggcg attggcggtg cgtcgttccc gacctactac
 180
 cgagcatgt acccgaaaga agtgatcatg accggcgaca tgatgctgga aaaggtctat
 240
 cgcgagggcg acaagctggt ggcgggtgctg gagaacgaat acaccggcgc caaggaagag
 300
 cgggtggctg accaggtggt ggtggagaac ggtgtgcgtc cggatgagga aatctactac
 360
 gggctcaagg aaggttcgcg caacaagggc cagatcgtat tcgaagccct gttcgcgac
 420
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 469

<210> 4366
 <211> 156
 <212> PRT
 <213> Homo sapiens

<400> 4366
 Asp Val Leu Asp Gly Lys Val Ala Pro Gly Lys Asn Val Pro Val Tyr
 1 5 10 15
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 20 25 30
 Asp Lys Gly Ser Gln Val Glu Ile Val Thr Asp Asp Ile Lys Pro Gly
 35 40 45
 Val Ala Ile Gly Gly Thr Ser Phe Pro Thr Tyr Tyr Arg Ser Met Tyr
 50 55 60
 Pro Lys Glu Val Ile Met Thr Gly Asp Met Met Leu Glu Lys Val Tyr


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65          70          75          80
Arg Glu Gly Asp Lys Leu Val Ala Val Leu Glu Asn Glu Tyr Thr Gly
          85          90          95
Ala Lys Glu Glu Arg Val Val Asp Gln Val Val Val Glu Asn Gly Val
          100          105          110
Arg Pro Asp Glu Glu Ile Tyr Tyr Gly Leu Lys Glu Gly Ser Arg Asn
          115          120          125
Lys Gly Gln Ile Asp Val Glu Ala Leu Phe Ala Ile Lys Pro Gln Pro
          130          135          140
Ser Leu Asn Thr Leu Asn Glu Glu Ala Ala Gly Asp
145          150          155

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<210> 4367

<211> 852

<212> DNA

<213> Homo sapiens

<400> 4367

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120
atctacgaga ctccccgggg cccagaccca gccctcctgg aggccacagg gggagcagct
180
ggagctggtg gggctggccg cggggaggat gaagagaacc gagagcaccg tgtccgcagg
240
atccatgtcc ggcgccatat caccacgac gagcgctctc atggccaaca aattgtcttc
300
aaggactgac ctctgaccct cccctgcct tcctcttgcc ttgggaccca gtcctctctc
360
ctttccctcc ccttcccaga cttttgcccc ggctctgctg gccaaagtcgt gggtcctcct
420
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480
tgctaacaac atggtacatt ccggccccac cactcagagc cttccgaagc caacacttgt
540
ccccaccctg gccctgcgtc ctccctctc cagctgggta agagggattt agaattcctc
600
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660
gtctgagcag cctcccgct cctgcagggt agtcgcgcc ctcctcccga ccatectccc
720
tacctcctta actttgtact agactggcct gggcctgccc agctcagcgt tatcagtcgt
780
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840
aactaaaaaa aa
852

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<210> 4368

<211> 102

<212> PRT

<213> Homo sapiens

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<400> 4368
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Leu Gly Pro Ala Gly Leu Leu Gln Val Glu Phe Pro Glu Ala Arg Ile
          20          25          30
Phe Glu Glu Thr Leu Asn Ile Leu Ile Tyr Glu Thr Pro Arg Gly Pro
          35          40          45
Asp Pro Ala Leu Leu Glu Ala Thr Gly Gly Ala Ala Gly Ala Gly Gly
          50          55          60
Ala Gly Arg Gly Glu Asp Glu Glu Asn Arg Glu His Arg Val Arg Arg
65          70          75          80
Ile His Val Arg Arg His Ile Thr His Asp Glu Arg Pro His Gly Gln
          85          90          95
Gln Ile Val Phe Lys Asp
          100

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<213> Homo sapiens

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<400> 4369
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120
actacagaaa aggaagtagc agaaccactc ctggacctga aggaaggaaat agaccagttg
180
gagaacaata aaaccttggg ctttatcctg tctactctct tagccattgg gaactttcta
240
aatggaacta atgccaaagc gtttgagtta agctacctcg agaaggttcc agaagtcaaa
300
gacacagtgc acaagcagtc gcttctccac catgtgtgca ccatgggtgg agaaaacttc
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cacctcaagg caattgcaaa acatgaaatg aaaccagttt taaaacaacg gatgtcagag
540
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600
aacagattcc actccttttt actctttatg ggccatccac cttatgcaat tcgggaagtg
660
aacataaaca aattctgcag gattattagt gaatttgcac tagagtatcg cacaaccagg
720
gaaagggttt tgcagcagaa acagaaacgg gcccaaccaca gagagagaaa taagaccaga
780
gggaagatga tcaccgattc tggcaagttc tccggcagtt ctccggcgcc cccaagccag
840
ccgcagggtc tgagctatgc ggaggacgag gctgagcacg agaacatgaa ggctgtgctg
900
aaaacctcgt cccctccag gagtccccctg cacatacctt ctccatcgtg tcagctgtgt
960

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 1080
 aatctgatta gcttcacaga ctgagtctcc acaacaccaa aatatccaga tgtaaaccac
 1140
 aaacttgtag acaaaagaaa gcacagattg tttacctgtt gtggatttta gatgtaacaa
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<210> 4370

<211> 322

<212> PRT

<213> Homo sapiens

<400> 4370

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			20					25					30		
Trp	Ala	Phe	Lys	Met	Asp	Tyr	Glu	Thr	Thr	Glu	Lys	Glu	Val	Ala	Glu
		35					40					45			
Pro	Leu	Leu	Asp	Leu	Lys	Glu	Gly	Ile	Asp	Gln	Leu	Glu	Asn	Asn	Lys
	50					55				60					
Thr	Leu	Gly	Phe	Ile	Leu	Ser	Thr	Leu	Leu	Ala	Ile	Gly	Asn	Phe	Leu
65					70					75				80	
Asn	Gly	Thr	Asn	Ala	Lys	Ala	Phe	Glu	Leu	Ser	Tyr	Leu	Glu	Lys	Val
			85					90					95		
Pro	Glu	Val	Lys	Asp	Thr	Val	His	Lys	Gln	Ser	Leu	Leu	His	His	Val
		100						105					110		
Cys	Thr	Met	Val	Val	Glu	Asn	Phe	Pro	Asp	Ser	Ser	Asp	Leu	Tyr	Ser
		115					120					125			
Glu	Ile	Gly	Ala	Ile	Thr	Arg	Ser	Ala	Lys	Val	Asp	Phe	Asp	Gln	Leu
	130					135					140				
Gln	Asp	Asn	Leu	Cys	Gln	Met	Glu	Arg	Arg	Cys	Lys	Ala	Ser	Trp	Asp
145					150					155				160	
His	Leu	Lys	Ala	Ile	Ala	Lys	His	Glu	Met	Lys	Pro	Val	Leu	Lys	Gln
			165					170					175		
Arg	Met	Ser	Glu	Phe	Leu	Lys	Asp	Cys	Ala	Glu	Arg	Ile	Ile	Ile	Leu
		180						185					190		
Lys	Ile	Val	His	Arg	Arg	Ile	Ile	Asn	Arg	Phe	His	Ser	Phe	Leu	Leu
		195				200						205			
Phe	Met	Gly	His	Pro	Pro	Tyr	Ala	Ile	Arg	Glu	Val	Asn	Ile	Asn	Lys
	210					215				220					
Phe	Cys	Arg	Ile	Ile	Ser	Glu	Phe	Ala	Leu	Glu	Tyr	Arg	Thr	Thr	Arg
225					230					235				240	
Glu	Arg	Val	Leu	Gln	Lys	Gln	Lys	Arg	Ala	Asn	His	Arg	Glu	Arg	
			245					250					255		
Asn	Lys	Thr	Arg	Gly	Lys	Met	Ile	Thr	Asp	Ser	Gly	Lys	Phe	Ser	Gly
		260						265					270		
Ser	Ser	Pro	Ala	Pro	Pro	Ser	Gln	Pro	Gln	Gly	Leu	Ser	Tyr	Ala	Glu

	275		280		285	
Asp	Ala	Ala	Glu	His	Glu	Asn
					Met	Lys
					Ala	Val
					Leu	Lys
					Thr	Ser
					Ser	
	290		295		300	
Pro	Ser	Arg	Ser	Pro	Leu	His
					Ile	Pro
					Ser	Pro
					Ser	Cys
					Gln	Leu
					Cys	
305			310		315	320
Phe	Ser					

<210> 4371
 <211> 907
 <212> DNA
 <213> Homo sapiens

<400> 4371
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 120
 gccatcgaca taggcgggtc gttaccaaag ctggcctact attcaacggt acagcacaaa
 180
 gtcgccaaagg tgcggtcttt cgaccactcc ggaaaggaca cagaacgtga acatgagccg
 240
 ccctatgaga ttccagttca agaagagatc actgctcgac tgcacttcat taagtttgag
 300
 aatacctaca tcgaagcctg cctggacttc atcaaagacc atctcgtcaa cacagagacc
 360
 aaggtcatcc aggcgaccgg gggcggggcc tacaagttca aggacctcat cgaagagaag
 420
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 480
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 540
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 660
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 780
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 atgatca
 907

<210> 4372
 <211> 302
 <212> PRT
 <213> Homo sapiens

<400> 4372
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1 5 10 15
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 20 25 30
 Asn Leu Glu Asn Ala Lys Arg Phe Ala Ile Asp Ile Gly Gly Ser Leu
 35 40 45
 Thr Lys Leu Ala Tyr Tyr Ser Thr Val Gln His Lys Val Ala Lys Val
 50 55 60
 Arg Ser Phe Asp His Ser Gly Lys Asp Thr Glu Arg Glu His Glu Pro
 65 70 75 80
 Pro Tyr Glu Ile Ser Val Gln Glu Glu Ile Thr Ala Arg Leu His Phe
 85 90 95
 Ile Lys Phe Glu Asn Thr Tyr Ile Glu Ala Cys Leu Asp Phe Ile Lys
 100 105 110
 Asp His Leu Val Asn Thr Glu Thr Lys Val Ile Gln Ala Thr Gly Gly
 115 120 125
 Gly Ala Tyr Lys Phe Lys Asp Leu Ile Glu Glu Lys Leu Arg Leu Lys
 130 135 140
 Val Asp Lys Glu Asp Val Met Thr Cys Leu Ile Lys Gly Cys Asn Phe
 145 150 155 160
 Val Leu Lys Asn Ile Pro His Glu Ala Phe Val Tyr Gln Lys Asp Ser
 165 170 175
 Asp Pro Glu Phe Arg Phe Gln Thr Asn His Pro His Ile Phe Pro Tyr
 180 185 190
 Leu Leu Val Asn Ile Gly Ser Gly Val Ser Ile Val Lys Val Glu Thr
 195 200 205
 Glu Asp Arg Phe Glu Trp Val Gly Gly Ser Ser Ile Gly Gly Gly Thr
 210 215 220
 Phe Trp Gly Leu Gly Ala Leu Leu Thr Lys Thr Lys Lys Phe Asp Glu
 225 230 235 240
 Leu Leu His Leu Ala Ser Arg Gly Gln His Ser Asn Val Asp Met Leu
 245 250 255
 Val Arg Asp Val Tyr Gly Gly Ala His Gln Thr Leu Gly Leu Ser Gly
 260 265 270
 Asn Leu Ile Ala Ser Ser Phe Gly Lys Ser Ala Thr Ala Asp Gln Glu
 275 280 285
 Phe Ser Lys Glu Asp Met Ala Lys Ser Leu Leu His Met Ile
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<210> 4373

<211> 1017

<212> DNA

<213> Homo sapiens

<400> 4373

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120

ggagtgtgtg agaggaggga gcaaaaagct caccctaaaa catttatttc aaggagaaaa
180

gaaaaagggg gggcgcaaaa atggctgggg caattataga aaacatgagc accaagaagc
240

tgtgcattgt tgggtgggatt ctgctcgtgt tccaaatcat cgcctttctg gtgggaggct
300

tgattgctcc agggcccaca acggcagtgt cctacatgtc ggtgaaatgt gtggatgccc
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 gtaagaacca tcacaagaca aaatgggttcg tgccttgagg acccaatcat tgtgacaaga
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<210> 4374

<211> 272

<212> PRT

<213> Homo sapiens

<400> 4374

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			20					25					30		
Gly	Leu	Ile	Ala	Pro	Gly	Pro	Thr	Thr	Ala	Val	Ser	Tyr	Met	Ser	Val
			35				40					45			
Lys	Cys	Val	Asp	Ala	Arg	Lys	Asn	His	His	Lys	Thr	Lys	Trp	Phe	Val
	50					55					60				
Pro	Trp	Gly	Pro	Asn	His	Cys	Asp	Lys	Ile	Arg	Asp	Ile	Glu	Glu	Ala
65				70					75					80	
Ile	Pro	Arg	Glu	Ile	Glu	Ala	Asn	Asp	Ile	Val	Phe	Ser	Val	His	Ile
			85					90						95	
Pro	Leu	Pro	His	Met	Glu	Met	Ser	Pro	Trp	Phe	Gln	Phe	Met	Leu	Phe
			100					105					110		
Ile	Leu	Gln	Leu	Asp	Ile	Ala	Phe	Lys	Leu	Asn	Asn	Gln	Ile	Arg	Glu
		115				120						125			
Asn	Ala	Glu	Val	Ser	Met	Asp	Val	Ser	Leu	Ala	Tyr	Arg	Asp	Asp	Ala
	130					135					140				
Phe	Ala	Glu	Trp	Thr	Glu	Met	Ala	His	Glu	Arg	Val	Pro	Arg	Lys	Leu
145				150					155					160	
Lys	Cys	Thr	Phe	Thr	Ser	Pro	Lys	Thr	Pro	Glu	His	Glu	Gly	Arg	Tyr
			165					170						175	
Tyr	Glu	Cys	Asp	Val	Leu	Pro	Phe	Met	Glu	Ile	Gly	Ser	Val	Ala	His

	180		185		190
Lys	Phe Tyr Leu Leu Asn Ile Arg Leu Pro Val Asn Glu Lys Lys Lys				
	195		200		205
Ile	Asn Val Gly Ile Gly Glu Ile Lys Asp Ile Arg Leu Val Gly Ile				
	210		215		220
His	Gln Asn Gly Gly Phe Thr Lys Val Trp Phe Ala Met Lys Thr Phe				
225		230		235	240
Leu	Thr Pro Ser Ile Phe Ile Ile Met Val Trp Tyr Trp Arg Arg Ile				
	245		250		255
Thr	Met Met Ser Arg Pro Pro Val Leu Leu Glu Lys Val Ile Phe Ala				
	260		265		270

<210> 4375

<211> 1966

<212> DNA

<213> Homo sapiens

<400> 4375

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<210> 4376

<211> 399

<212> PRT

<213> Homo sapiens

<400> 4376

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Lys Val Glu Arg Asn Ile Lys Lys Ser Leu Gln Glu His Leu Pro Asp				
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Ser Gly Gly Tyr Gln Lys Arg Thr Ala Arg Ile Ile Ala Asp Ser Ile				
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<211> 812

<212> DNA

<213> Homo sapiens

<400> 4377

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<211> 233

<212> PRT

<213> Homo sapiens

<400> 4378

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<210> 4379

<211> 2347

<212> DNA

<213> Homo sapiens

<400> 4379

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<211> 652

<212> PRT

<213> Homo sapiens

<400> 4380

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Asp	Arg	Asp	Gly	His	Thr	Trp	Asp	Ile	Gly	Asp	Val	Gln	Lys	Leu	Leu
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Ser	Gly	Val	Glu	Arg	Leu	Arg	Asn	Pro	Asp	Leu	Ile	Gln	Ala	Gly	Tyr

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Cys Asp Ile Ser Cys Lys Gly Gly His Ser Thr Val Thr Asp Leu Gln		175
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Glu Leu Leu Gly Cys Leu Tyr Glu Ser Gln Glu Glu Glu Leu Val Lys		190
	195	200
Glu Val Met Ala Gln Phe Lys Glu Ile Ser Leu His Leu Asn Ala Val		205
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Asp Val Val Pro Ser Ser Phe Cys Val Lys His Cys Arg Asn Leu Gln		220
225	230	235
Lys Met Ser Leu Gln Val Ile Lys Glu Asn Leu Pro Glu Asn Val Thr		240
	245	250
Ala Ser Glu Ser Asp Ala Glu Val Glu Arg Ser Gln Asp Asp Gln His		255
	260	265
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Asp Leu Met Gly Leu Ala Ile Asn Asp Ser Phe Leu Ser Ala Ser Leu		285
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Val Arg Ile Leu Cys Glu Gln Ile Ala Ser Asp Thr Cys His Leu Gln		300
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	370	375
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Gly Ala Lys Leu Leu Tyr Thr Thr Leu Arg His Pro Lys Cys Phe Leu		415
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Gln Arg Leu Ser Leu Glu Asn Cys His Leu Thr Glu Ala Asn Cys Lys		430
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Glu Lys Ser Ser Leu Leu Cys Leu Asp Leu Gly Leu Asn His Ile Gly		510
	515	520
Val Lys Gly Met Lys Phe Leu Cys Glu Ala Leu Arg Lys Pro Leu Cys		525
	530	535
Asn Leu Arg Cys Leu Trp Leu Trp Gly Cys Ser Ile Pro Pro Phe Ser		540
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Cys Glu Asp Val Cys Ser Ala Leu Ser Cys Asn Gln Ser Leu Val Thr		560

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Phe Glu Thr Leu Thr Cys Ser Ser Gly Thr Leu Arg Thr Leu Arg Leu					
	595		600		605
Lys Ile Asp Asp Phe Asn Asp Glu Leu Asn Lys Leu Leu Glu Glu Ile					
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<210> 4381

<211> 1638

<212> DNA

<213> Homo sapiens

<400> 4381

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<212> PRT

<213> Homo sapiens

<400> 4382

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Asp	Gln	Ala	Asp	Ala	Ala	Glu	Ala	Arg	Arg	Ala	Gly	Asn	Leu	Gly	Lys
	130					135					140				
Asn	Pro	Asp	Val	Asp	Thr	Ser	Phe	Leu	Pro	Asp	Arg	Asp	Arg	Glu	Glu
145					150					155				160	
Glu	Glu	Asn	Arg	Leu	Arg	Glu	Glu	Leu	Arg	Gln	Glu	Trp	Glu	Ala	Gln
		165						170					175		
Arg	Glu	Lys	Val	Lys	Asp	Glu	Glu	Met	Glu	Val	Thr	Phe	Ser	Tyr	Trp
		180					185					190			
Asp	Gly	Ser	Gly	His	Arg	Arg	Thr	Val	Arg	Val	Arg	Lys	Gly	Asn	Thr
	195						200					205			
Val	Gln	Gln	Phe	Leu	Lys	Lys	Ala	Leu	Gln	Gly	Leu	Arg	Lys	Asp	Phe

210 215 220
 Leu Glu Leu Arg Ser Ala Gly Val Glu Gln Leu Met Phe Ile Lys Glu
 225 230 235 240
 Asp Leu Ile Leu Pro His Tyr His Thr Phe Tyr Asp Phe Ile Ile Ala
 245 250 255
 Arg Ala Arg Gly Lys Ser Gly Pro Leu Phe Ser Phe Asp Val His Asp
 260 265 270
 Asp Val Arg Leu Leu Ser Asp Ala Thr Met Glu Lys Asp Glu Ser His
 275 280 285
 Ala Gly Lys Val Val Leu Arg Ser Trp Tyr Glu Lys Asn Lys His Ile
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 Phe Pro Ala Ser Arg Trp Glu Ala Tyr Asp Pro Glu Lys Lys Trp Asp
 305 310 315 320
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 325

<210> 4383
 <211> 419
 <212> DNA
 <213> Homo sapiens

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 300
 ccagctcagc catttacagg acctaaaaca ggcaccaccc agcccaatgg acagattccc
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<210> 4384
 <211> 139
 <212> PRT
 <213> Homo sapiens

<400> 4384
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 35 40 45
 Leu Cys Cys Asp Asp Thr Arg Thr Leu Asn Gln Trp Val Met Gly Ile
 50 55 60
 Arg Ile Ala Lys Tyr Gly Lys Thr Leu Tyr Asp Asn Tyr Gln Arg Ala
 65 70 75 80
 Val Ala Lys Ala Gly Leu Ala Ser Arg Trp Thr Asn Leu Gly Thr Val

	85		90		95										
Asn	Ala	Ala	Ala	Pro	Ala	Gln	Pro	Phe	Thr	Gly	Pro	Lys	Thr	Gly	Thr
	100				105				110						
Thr	Gln	Pro	Asn	Gly	Gln	Ile	Pro	Gln	Ala	Thr	His	Phe	Phe	Ser	Ala
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Val	Leu	Gln	Glu	Ala	Gln	Arg	His	Ala	Glu	Asn					
	130				135										

<210> 4385

<211> 754

<212> DNA

<213> Homo sapiens

<400> 4385

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<210> 4386

<211> 85

<212> PRT

<213> Homo sapiens

<400> 4386

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Ser	Val	Pro	Ser	Gly	Gly	His	Pro	Ser	Ser	Ser	His	Trp	Leu	Pro	Ala
		20					25					30			
Val	Ser	Leu	Gln	Ser	Pro	Asp	Arg	Arg	Leu	Ser	His	Asp	Pro	Ala	Ala
		35					40				45				
Ser	Ser	Trp	Ser	Gly	Phe	Cys	Gly	Ile	Ser	Pro	Ala	Phe	Ser	Ala	Phe

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<210> 4387
 <211> 341
 <212> DNA
 <213> Homo sapiens

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 120
 cccccgggn ggggggaag gggggggggg tttttcccc ctccccccc ccctaaaaa
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 aaaaccgga aaattttttt tcccccccc ccaaaaaaa aaaaaaacc ggggggcccc
 240
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<210> 4388
 <211> 113
 <212> PRT
 <213> Homo sapiens

<400> 4388
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 20 25 30
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 35 40 45
 Gly Gly Phe Phe Pro Pro Pro Pro Pro Lys Lys Lys Thr Arg Lys
 50 55 60
 Ile Phe Phe Pro Pro Pro Pro Lys Lys Lys Lys Lys Pro Gly Gly Pro
 65 70 75 80
 Pro Phe Phe Gly Gly Gly Gly Phe Phe Phe Phe Phe Phe Phe Phe
 85 90 95
 Phe Phe Phe Tyr Lys Thr Glu Asn Val Tyr Cys Ala Arg Gly Trp Ser
 100 105 110
 Val

<210> 4389
 <211> 1895
 <212> DNA
 <213> Homo sapiens

<400> 4389

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<210> 4390

<211> 335

<212> PRT

<213> Homo sapiens

<400> 4390

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		20						25					30		
Ser	Ala	Arg	Glu	Lys	Ala	Leu	Arg	Gly	Ala	Leu	Arg	Ala	Ser	Val	Glu
		35					40					45			
Arg	Arg	Leu	Ser	Arg	His	Asp	Val	Val	Ile	Leu	Asp	Ser	Leu	Asn	Tyr
		50			55						60				
Ile	Lys	Gly	Phe	Arg	Tyr	Glu	Leu	Tyr	Cys	Leu	Ala	Arg	Ala	Ala	Arg
65					70					75				80	
Thr	Pro	Leu	Cys	Leu	Val	Tyr	Cys	Val	Arg	Pro	Gly	Gly	Pro	Ile	Ala
			85						90					95	
Gly	Pro	Gln	Val	Ala	Gly	Ala	Asn	Glu	Asn	Pro	Gly	Arg	Asn	Val	Ser
		100						105					110		
Val	Ser	Trp	Arg	Pro	Arg	Ala	Glu	Glu	Asp	Gly	Arg	Ala	Gln	Ala	Ala
		115					120					125			
Gly	Ser	Ser	Val	Leu	Arg	Glu	Leu	His	Thr	Ala	Asp	Ser	Val	Val	Asn
		130				135					140				
Gly	Ser	Ala	Gln	Ala	Asp	Val	Pro	Lys	Glu	Leu	Glu	Arg	Glu	Glu	Ser
145					150					155				160	
Gly	Ala	Ala	Glu	Ser	Pro	Ala	Leu	Val	Thr	Pro	Asp	Ser	Glu	Lys	Ser
			165						170					175	
Ala	Lys	His	Gly	Ser	Gly	Ala	Phe	Tyr	Ser	Pro	Glu	Leu	Leu	Glu	Ala
		180						185					190		
Leu	Thr	Leu	Arg	Phe	Glu	Ala	Pro	Asp	Ser	Arg	Asn	Arg	Trp	Asp	Arg
		195					200					205			
Pro	Leu	Phe	Thr	Leu	Val	Gly	Ile	Glu	Glu	Pro	Leu	Pro	Pro	Ala	Gly
		210				215					220				
Ile	Arg	Ser	Ala	Leu	Phe	Glu	Asn	Arg	Ala	Pro	Pro	Pro	His	Gln	Ser
225					230					235				240	
Thr	Gln	Ser	Gln	Pro	Leu	Ala	Ser	Gly	Ser	Phe	Leu	His	Gln	Leu	Asp
			245						250					255	
Gln	Val	Thr	Ser	Gln	Val	Leu	Ala	Gly	Leu	Met	Glu	Ala	Gln	Lys	Ser
		260						265					270		
Ala	Val	Pro	Gly	Asp	Leu	Leu	Thr	Leu	Pro	Gly	Thr	Thr	Glu	His	Leu
		275					280					285			
Arg	Phe	Thr	Arg	Pro	Leu	Thr	Met	Ala	Glu	Leu	Ser	Arg	Leu	Arg	Arg

290	295	300
Gln Phe Ile Ser Tyr Thr Lys Met His Pro Asn Asn Glu Asn Leu Pro		
305	310	315
Gln Leu Ala Asn Met Phe Leu Gln Tyr Leu Ser Gln Ser Leu His		320
	325	330
		335

<210> 4391
 <211> 988
 <212> DNA
 <213> Homo sapiens

<400> 4391
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<210> 4392
 <211> 211
 <212> PRT
 <213> Homo sapiens

<400> 4392
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Ala Ser Val Gly Pro Gln Ser Tyr Gly Gly Gly Met Arg Pro Pro Pro			
35	40	45	
Asn Ser Leu Ala Gly Pro Gly Leu Pro Ala Met Asn Met Gly Pro Gly			
50	55	60	
Val Arg Gly Pro Trp Ala Ser Pro Ser Gly Asn Ser Ile Pro Tyr Ser			
65	70	75	80
Ser Ser Ser Pro Gly Ser Tyr Thr Gly Pro Pro Gly Gly Gly Gly Pro			
85	90	95	
Pro Gly Thr Pro Ile Met Pro Ser Pro Gly Asp Ser Thr Asn Ser Ser			
100	105	110	
Glu Asn Met Tyr Thr Ile Met Asn Pro Ile Gly Gln Gly Ala Gly Arg			
115	120	125	
Ala Asn Phe Pro Leu Gly Pro Gly Pro Glu Gly Pro Met Ala Ala Met			
130	135	140	
Ser Ala Met Glu Pro His His Val Asn Gly Ser Leu Gly Ser Gly Asp			
145	150	155	160
Met Asp Gly Leu Pro Lys Ser Ser Pro Gly Ala Val Ala Gly Leu Ser			
165	170	175	
Asn Ala Pro Gly Thr Pro Arg Asp Asp Gly Glu Met Ala Ala Gly			
180	185	190	
Thr Phe Leu His Pro Phe Pro Ser Glu Ser Tyr Ser Pro Gly Met Thr			
195	200	205	
Met Ser Val			
210			

<210> 4393

<211> 2171

<212> DNA

<213> Homo sapiens

<400> 4393

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<210> 4394
 <211> 428
 <212> PRT
 <213> Homo sapiens

<400> 4394

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      35           40           45
Glu Lys Leu Gln Arg Val Leu Glu Lys Ala Ala Leu Lys Leu Gly Arg
      50           55           60
Pro Thr Leu Ser Ser Glu Val Gly Ile Ile Ile Cys Asp Ile Ala Asn
65           70           75           80
Pro Ala Ser Leu Asp Glu Met Ala Lys Gln Ala Thr Val Val Leu Asn
      85           90           95
Cys Val Gly Pro Tyr Arg Phe Tyr Gly Glu Pro Val Ile Lys Ala Cys
      100          105          110
Ile Glu Asn Gly Ala Ser Cys Ile Asp Ile Ser Gly Glu Pro Gln Phe
      115          120          125
Leu Glu Leu Met Gln Leu Lys Tyr His Glu Lys Ala Ala Asp Lys Gly
      130          135          140
Val Tyr Ile Ile Gly Ser Ser Gly Phe Asp Ser Ile Pro Ala Asp Leu
145          150          155          160
Gly Val Ile Tyr Thr Arg Asn Lys Met Asn Gly Thr Leu Thr Ala Val
      165          170          175
Glu Ser Phe Leu Thr Ile His Ser Gly Pro Glu Gly Leu Ser Ile His
      180          185          190
Asp Gly Thr Trp Lys Ser Ala Ile Tyr Gly Phe Gly Asp Gln Ser Asn
      195          200          205
Leu Arg Lys Leu Arg Asn Val Ser Asn Leu Lys Pro Val Pro Leu Ile
      210          215          220
Gly Pro Lys Leu Lys Arg Arg Trp Pro Ile Ser Tyr Cys Arg Glu Leu
225          230          235          240
Lys Gly Tyr Ser Ile Pro Phe Met Gly Ser Asp Val Ser Val Val Arg
      245          250          255
Arg Thr Gln Arg Tyr Leu Tyr Glu Asn Leu Glu Glu Ser Pro Val Gln
      260          265          270
Tyr Ala Ala Tyr Val Thr Val Gly Ile Thr Ser Val Ile Lys Leu
      275          280          285
Met Phe Ala Gly Leu Phe Phe Leu Phe Phe Val Arg Phe Gly Ile Gly
      290          295          300
Arg Gln Leu Leu Ile Lys Phe Pro Trp Phe Phe Ser Phe Gly Tyr Phe
305          310          315          320
Ser Lys Gln Gly Pro Thr Gln Lys Gln Ile Asp Ala Ala Ser Phe Thr
      325          330          335
Leu Thr Phe Phe Gly Gln Gly Tyr Ser Gln Gly Thr Gly Thr Asp Lys
      340          345          350
Asn Lys Pro Asn Ile Lys Ile Cys Thr Gln Val Lys Gly Pro Glu Ala
      355          360          365
Gly Tyr Val Ala Thr Pro Ile Ala Met Val Gln Ala Ala Met Thr Leu

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385              390              395              400
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<210> 4395

<211> 1893

<212> DNA

<213> Homo sapiens

<400> 4395

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120
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<210> 4396

<211> 463

<212> PRT

<213> Homo sapiens

<400> 4396

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	130					135					140				
Cys	Gly	Ala	Val	Glu	Thr	Arg	Leu	Ala	Ala	Glu	Ile	Leu	Cys	Gln	Gly
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 Phe Pro Thr Leu Val Ser Thr Trp Glu His Asp Leu Pro Ser His Arg
 225 230 235 240
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 Ile Lys Ala Leu Glu Asp Asp Glu Pro Gln Pro Glu Val Ser Leu Glu
 405 410 415
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<210> 4397

<211> 2543

<212> DNA

<213> Homo sapiens

<400> 4397

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<211> 354

<212> PRT

<213> Homo sapiens

<400> 4398

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Asn	Ser	Pro	Val	Leu	Leu	Ser	Arg	Leu	His	Phe	Glu	Lys	Asp	Ala	Asp
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Ser	Ser	Glu	Arg	Ile	Ile	Ala	Pro	Met	Arg	Trp	Gly	Leu	Val	Pro	Ser
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Trp	Phe	Lys	Glu	Ser	Asp	Pro	Ser	Lys	Leu	Gln	Phe	Asn	Thr	Thr	Asn
			85					90					95		
Cys	Arg	Ser	Asp	Thr	Val	Met	Glu	Lys	Arg	Ser	Phe	Lys	Val	Pro	Leu
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Gly	Lys	Gly	Arg	Arg	Cys	Val	Val	Leu	Ala	Asp	Gly	Phe	Tyr	Glu	Trp
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Gln	Arg	Cys	Gln	Gly	Thr	Asn	Gln	Arg	Gln	Pro	Tyr	Phe	Ile	Tyr	Phe
	130				135					140					
Pro	Gln	Ile	Lys	Thr	Glu	Lys	Ser	Gly	Ser	Ile	Gly	Ala	Ala	Asp	Ser
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		165					170						175		
Ala	Gly	Ile	Phe	Asp	Cys	Trp	Glu	Pro	Pro	Glu	Gly	Gly	Asp	Val	Leu
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Tyr	Ser	Tyr	Thr	Ile	Ile	Thr	Val	Asp	Ser	Cys	Lys	Gly	Leu	Ser	Asp
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Ile	His	His	Arg	Met	Pro	Ala	Ile	Leu	Asp	Gly	Glu	Glu	Ala	Val	Ser

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Ile His Pro Thr Glu Asn Ile Thr Phe His Ala Val Ser Ser Val Val		240
	245	250
Asn Asn Ser Arg Asn Asn Thr Pro Glu Cys Leu Ala Pro Val Asp Leu		255
	260	265
Val Val Lys Lys Glu Leu Arg Ala Ser Gly Ser Ser Gln Arg Met Leu		270
	275	280
Gln Trp Leu Ala Thr Lys Ser Pro Lys Lys Glu Asp Ser Lys Thr Pro		285
	290	295
Gln Lys Glu Glu Ser Asp Val Pro Gln Trp Ser Ser Gln Phe Leu Gln		300
305	310	315
Lys Ser Pro Leu Pro Thr Lys Arg Gly Thr Ala Gly Leu Leu Glu Gln		320
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Trp Leu Lys Arg Glu Lys Glu Glu Glu Pro Val Ala Lys Arg Pro Tyr		335
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Ser Gln		350

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<211> 723

<212> DNA

<213> Homo sapiens

<400> 4399

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<210> 4400

<211> 241

<212> PRT

<213> Homo sapiens

<400> 4400

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 35 40 45
 Ala Leu Asp Glu Gln Leu Val Gln Val Lys Glu Ala Glu Arg His His
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 Ser Ser Pro Lys Arg Glu Leu Pro Pro Gly Ile Gly Asp Met Val Glu
 65 70 75 80
 Leu Met Gly Val Gln Asp Gln His Met Asp Glu Arg Asp Val Arg Arg
 85 90 95
 Phe Gln Leu Lys Ile Ala Glu Leu Asn Ser Val Ile Arg Lys Leu Glu
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 Asp Arg Asn Thr Leu Leu Ala Asp Glu Arg Asn Glu Leu Leu Lys Arg
 115 120 125
 Ser Arg Glu Thr Glu Val Gln Leu Lys Pro Leu Val Glu Lys Asn Lys
 130 135 140
 Arg Met Asn Lys Lys Asn Glu Asp Leu Leu Gln Ser Ile Gln Arg Met
 145 150 155 160
 Glu Glu Lys Ile Lys Asn Leu Thr Arg Glu Asn Val Glu Met Lys Glu
 165 170 175
 Lys Leu Ser Ala Gln Ala Ser Leu Lys Arg His Thr Ser Leu Asn Asp
 180 185 190
 Leu Ser Leu Thr Arg Asp Glu Gln Glu Ile Glu Phe Leu Arg Leu Gln
 195 200 205
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<210> 4401

<211> 1131

<212> DNA

<213> Homo sapiens

<400> 4401

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<210> 4402

<211> 252

<212> PRT

<213> Homo sapiens

<400> 4402

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			20						25				30		
Thr	Ala	Arg	Lys	Ser	Ile	Thr	Val	Ile	Cys	Asp	Phe	Tyr	Ser	Leu	Ile
		35					40					45			
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	50					55				60					
Gln	Tyr	Gly	Arg	Trp	Ala	Val	Val	Ser	Gly	Ala	Thr	Asp	Gly	Ile	Gly
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Lys	Ala	Tyr	Ala	Glu	Glu	Leu	Ala	Ser	Arg	Gly	Leu	Asn	Ile	Ile	Leu
			85						90				95		
Ile	Ser	Arg	Asn	Glu	Glu	Lys	Leu	Gln	Val	Val	Ala	Lys	Asp	Ile	Ala
			100					105					110		
Asp	Thr	Tyr	Lys	Val	Glu	Thr	Asp	Ile	Ile	Val	Ala	Asp	Phe	Ser	Ser
	115						120					125			
Gly	Arg	Glu	Ile	Tyr	Leu	Pro	Ile	Arg	Glu	Ala	Leu	Lys	Asp	Lys	Asp
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1020

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<210> 4404
 <211> 779
 <212> PRT
 <213> Homo sapiens

<400> 4404

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 Asn Asn His Gly Asn Phe Gln Gly Asp Ser Asn Phe Asn Arg Met Trp
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 Gln Pro Glu Trp Gly Met His Gln Gln Pro Pro His Pro Pro Pro Asp
 65 70 75 80
 Gln Pro Trp Met Pro Pro Thr Pro Gly Pro Met Asp Ile Val Pro Pro
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 Asn Phe Ala Val Gly Pro Val Asn Gln Phe Asp Tyr Gln His Gly Ala
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 Ala Phe Gly Pro Pro Gln Gly Gly Phe His Pro Pro Tyr Trp Gln Pro
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 Gly Pro Pro Gly Pro Pro Ala Pro Pro Gln Asn Arg Arg Glu Arg Pro
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 Ser Ser Phe Arg Asp Arg Gln Arg Ser Pro Ile Ala Leu Pro Val Lys
 180 185 190
 Gln Glu Pro Pro Gln Ile Asp Ala Val Lys Arg Arg Thr Leu Pro Ala
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 Trp Ile Arg Glu Gly Leu Glu Lys Met Glu Arg Glu Lys Gln Lys Lys
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 Leu Glu Lys Glu Arg Met Glu Gln Gln Arg Ser Gln Leu Ser Lys Lys
 225 230 235 240
 Lys Lys Lys Ala Thr Glu Asp Ala Glu Gly Gly Asp Gly Pro Arg Leu
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 Pro Gln Arg Ser Lys Phe Asp Ser Asp Glu Glu Glu Glu Asp Thr Glu
 260 265 270
 Asn Val Glu Ala Ala Ser Ser Gly Lys Val Thr Arg Ser Pro Ser Pro
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 Val Pro Gln Glu Glu His Ser Asp Pro Glu Met Thr Glu Glu Glu Lys
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 Glu Tyr Gln Met Met Leu Leu Thr Lys Met Leu Leu Thr Glu Ile Leu
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 Arg Lys Ala Thr Lys Ala Pro Ala Lys Gln Leu Ala Gln Ser Ser Ala
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 Leu Ala Ser Leu Thr Gly Leu Gly Gly Leu Gly Gly Tyr Gly Ser Gly
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 Trp Arg Lys Glu Lys Glu Gln Gln Leu Leu His Asp Lys Gln Met Glu
 405 410 415
 Glu Glu Lys Gln Gln Thr Glu Arg Val Thr Lys Glu Met Asn Glu Phe
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 Asp Gly Asp Val Val Asn Glu Lys Lys Arg Thr Pro Asn Glu Thr Thr
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 Ser Val Leu Glu Pro Lys Lys Glu His Lys Glu Lys Glu Lys Gln Gly
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 485 490 495
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 660 665 670
 Glu Lys Asp Phe Lys Phe Ser Ser Gln Asp Asp Arg Leu Lys Arg Lys
 675 680 685
 Arg Glu Ser Glu Arg Thr Phe Ser Arg Ser Gly Ser Ile Ser Val Lys
 690 695 700
 Ile Ile Arg His Asp Ser Arg Gln Asp Ser Lys Lys Ser Thr Thr Lys
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 Asp Ser Lys Lys His Ser Gly Ser Asp Ser Ser Gly Arg Ser Ser Ser
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<211> 918

<212> DNA

<213> Homo sapiens

<400> 4405

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<210> 4406

<211> 138

<212> PRT

<213> Homo sapiens

<400> 4406

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 35 40 45
 Gly Asn Lys Ser Asp Leu Ser Gln Ala Arg Glu Val Pro Thr Glu Glu
 50 55 60
 Ala Arg Met Phe Ala Glu Asn Asn Gly Leu Leu Phe Leu Glu Thr Ser
 65 70 75 80
 Ala Leu Asp Ser Thr Asn Val Glu Leu Ala Phe Glu Thr Val Leu Lys

	85		90		95
Glu Ile Phe Ala Lys Val Ser Lys Gln Arg Gln Asn Ser Ile Arg Thr					
	100		105		110
Asn Ala Ile Thr Leu Gly Ser Ala Gln Ala Gly Gln Glu Pro Gly Pro					
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<211> 974

<212> DNA

<213> Homo sapiens

<400> 4407

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<210> 4408

<211> 158

<212> PRT

<213> Homo sapiens

<400> 4408

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 Glu Ser Leu His Leu Phe Asn Ser Ile Cys Asn His Lys Tyr Phe Ser
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 Thr Thr Ser Ile Val Leu Phe Leu Asn Lys Lys Asp Ile Phe Gln Glu
 65 70 75 80
 Lys Val Thr Lys Val His Leu Ser Ile Cys Phe Pro Glu Tyr Thr Gly
 85 90 95
 Pro Asn Thr Phe Glu Asp Ala Gly Asn Tyr Ile Lys Asn Gln Phe Leu
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 Asp Leu Asn Leu Lys Lys Glu Asp Lys Glu Ile Tyr Ser His Met Thr
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<210> 4409

<211> 4217

<212> DNA

<213> Homo sapiens

<400> 4409

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<210> 4410

<211> 405

<212> PRT

<213> Homo sapiens

<400> 4410

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			35				40					45		Thr
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Gln	Lys	Cys	Pro	Arg	Val	Phe	Asn	Asn	Arg	Trp	Tyr	Leu	Glu	Lys
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			180				185					190		His
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Ser	Leu	Gln	His	Ser	Gly	Glu	Lys	Pro	Phe	Arg	Cys	Glu	Asn	Cys
225				230					235				240	Asp
Glu	Arg	Phe	Gln	Tyr	Lys	Tyr	Gln	Leu	Arg	Ser	His	Met	Ser	Ile
			245					250					255	His
Ile	Gly	His	Lys	Gln	Phe	Met	Cys	Gln	Trp	Cys	Gly	Lys	Asp	Phe
			260				265					270		Asn
Met	Lys	Gln	Tyr	Phe	Asp	Glu	His	Met	Lys	Thr	His	Thr	Gly	Glu
		275				280					285			Lys
Pro	Phe	Ile	Cys	Glu	Ile	Cys	Gly	Lys	Ser	Phe	Thr	Ser	Arg	Pro
	290				295						300			Asn
Met	Lys	Arg	His	Arg	Arg	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Pro
														Cys

305 310 315 320
 Asp Val Cys Gly Gln Arg Phe Arg Phe Ser Asn Met Leu Lys Ala His
 325 330 335
 Lys Glu Lys Cys Phe Arg Val Ser His Thr Leu Ala Gly Asp Gly Val
 340 345 350
 Pro Ala Ala Pro Gly Leu Pro Pro Thr Gln Pro Gln Ala His Ala Leu
 355 360 365
 Pro Leu Leu Pro Gly Leu Pro Gln Thr Leu Pro Pro Pro Pro His Leu
 370 375 380
 Pro Pro Pro Pro Pro Leu Phe Pro Thr Thr Ala Ser Pro Gly Gly Arg
 385 390 395 400
 Met Asn Ala Asn Asn
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<210> 4411

<211> 484

<212> DNA

<213> Homo sapiens

<400> 4411

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 180
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<210> 4412

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4412

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 Leu Ser Ile Lys Glu Glu Gly Pro Arg Leu Gly Leu Gly Gly Leu Gly
 20 25 30
 Ala Gln Ala Val Cys Pro Leu Phe Ser Ser Trp Cys Pro Ala Pro Pro
 35 40 45
 Arg Cys His Leu Pro Gln Trp Gln Trp Gly Phe Ile Thr Gly Ser Ser
 50 55 60
 Gly Pro Leu Pro Met Ala Gly Gly Val Pro Gly Gly Pro Asn Gln Ala

65		70		75		80									
Ala	Pro	Ala	Ser	Arg	Gln	Arg	Val	Gly	Phe	Leu	Gly	Gln	Pro	Gln	Ser
			85						90					95	
Cys	Gln	Arg	Gln	His	Val	Ser	Leu	His	Arg	Ser	His	Gln	Ala	Pro	Leu
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Asp															

<210> 4413

<211> 1097

<212> DNA

<213> Homo sapiens

<400> 4413

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240
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960
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1097

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<210> 4414

<211> 65
<212> PRT
<213> Homo sapiens

<400> 4414
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20 25 30
Lys Leu Glu Glu Lys Thr Ala His Ser Ser Leu Ala Leu Phe Arg Asp
35 40 45
Asp Thr Gly Val Lys Tyr Gly Leu Val Gly Leu Glu Pro Thr Lys Val
50 55 60
Pro
65

<210> 4415
<211> 775
<212> DNA
<213> Homo sapiens

<400> 4415
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360
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420
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480
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600
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660
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775

<210> 4416
<211> 100
<212> PRT
<213> Homo sapiens

<400> 4416

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 Arg Leu Arg Cys Arg Thr Leu Met Phe Ile Thr Ser Ser Tyr Pro Lys
 35 40 45
 Arg Asn Gly Phe Arg His Val Leu Ser Gln Gln Glu Ile Asp Phe Phe
 50 55 60
 Leu Asn Tyr Leu Ile Leu Leu Pro Asn Ile Thr Glu Val Met Arg Ser
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 Val Gly Val Ile
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<210> 4417

<211> 980

<212> DNA

<213> Homo sapiens

<400> 4417

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 180
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 240
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 360
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 420
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 480
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 780
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 960

gtgagcaggt aagagaggga
980

<210> 4418

<211> 263

<212> PRT

<213> Homo sapiens

<400> 4418

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Asn	Gln	Leu	Leu	Lys	Met	Lys	Val	Glu	Ser	Ser	Gln	Glu	Ala	Asn	Ala
		20						25					30		
Glu	Val	Met	Arg	Glu	Met	Thr	Lys	Lys	Leu	Tyr	Ser	Gln	Tyr	Glu	Glu
		35					40					45			
Lys	Leu	Gln	Glu	Glu	Gln	Arg	Lys	His	Ser	Ala	Glu	Lys	Glu	Ala	Leu
	50					55					60				
Leu	Glu	Glu	Thr	Asn	Ser	Phe	Leu	Lys	Ala	Ile	Glu	Glu	Ala	Asn	Lys
65				70						75				80	
Lys	Met	Gln	Ala	Ala	Glu	Ile	Ser	Leu	Glu	Glu	Lys	Asp	Gln	Arg	Ile
			85						90					95	
Gly	Glu	Leu	Asp	Arg	Leu	Ile	Glu	Arg	Met	Glu	Lys	Glu	Arg	His	Gln
			100					105					110		
Leu	Gln	Leu	Gln	Leu	Leu	Glu	His	Glu	Thr	Glu	Met	Ser	Gly	Glu	Leu
		115					120					125			
Thr	Asp	Ser	Asp	Lys	Glu	Arg	Tyr	Gln	Gln	Leu	Glu	Glu	Ala	Ser	Ala
	130						135					140			
Ser	Leu	Arg	Glu	Arg	Ile	Arg	His	Leu	Asp	Asp	Met	Val	His	Cys	Gln
145					150					155				160	
Gln	Lys	Lys	Val	Lys	Gln	Met	Val	Glu	Glu	Ile	Glu	Ser	Leu	Lys	Lys
				165					170					175	
Lys	Val	Gln	Gln	Lys	Gln	Leu	Leu	Ile	Leu	Gln	Leu	Leu	Glu	Lys	Ile
			180					185					190		
Ser	Phe	Leu	Glu	Gly	Glu	Asn	Asn	Glu	Leu	Gln	Ser	Arg	Leu	Asp	Tyr
		195					200					205			
Leu	Thr	Glu	Thr	Gln	Ala	Lys	Thr	Glu	Val	Glu	Thr	Arg	Glu	Ile	Gly
	210					215					220				
Val	Gly	Cys	Asp	Leu	Leu	Pro	Ser	Pro	Thr	Gly	Arg	Thr	Arg	Glu	Ile
225					230					235				240	
Val	Met	Pro	Ser	Arg	Asn	Tyr	Thr	Pro	Tyr	Thr	Arg	Val	Leu	Glu	Leu
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<210> 4419

<211> 369

<212> DNA

<213> Homo sapiens

<400> 4419

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120

cctccgcctc cccagctcaa gcaactctcc tgccccagcc acccaagtnn aaattacagg
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 360
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 369

<210> 4420

<211> 91

<212> PRT

<213> Homo sapiens

<400> 4420

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Phe	Ile	Leu	Arg	Gln	Gly	Leu	Ala	Leu	Xaa	Thr	Gln	Ala	Gly	Val	Gln
			20					25					30		
Trp	Cys	Asp	Leu	Gly	Ser	Leu	Gln	Pro	Pro	Pro	Pro	Gln	Leu	Lys	Gln
		35					40					45			
Leu	Ser	Cys	Pro	Ser	His	Pro	Ser	Xaa	Asn	Tyr	Arg	Pro	Val	Pro	Pro
	50				55						60				
His	Pro	Ala	Asn	Phe	Cys	Ile	Phe	Ser	Arg	Asp	Gly	Val	Ser	Pro	Tyr
65				70					75					80	
Trp	Pro	Gly	Arg	Ser	Gln	Thr	Pro	Gly	Pro	Met					
			85					90							

<210> 4421

<211> 1356

<212> DNA

<213> Homo sapiens

<400> 4421

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 120
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 180
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 240
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 300
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 360
 aagcaaccac cagaggctga tacaatggc cgctgtattt ttgctaaagt gacagtgaca
 420
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 480
 aatggcagtc taacagaaaa tcatccttgt accaacagcc ccttccctcc caagttaggt
 540

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 1260
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<210> 4422

<211> 58

<212> PRT

<213> Homo sapiens

<400> 4422

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 Thr Trp Gln Asn Pro Val Ser Thr Lys Asn Thr Lys Ile Cys Arg Ala
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 Trp Trp Gln Met Pro Val Ile Pro Ala Thr
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<210> 4423

<211> 2673

<212> DNA

<213> Homo sapiens

<400> 4423

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cccattgtgc tgggcagacg acaaaaagct ttggggaaga accgcagtgc tgatttcaac
180
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<210> 4424

<211> 768

<212> PRT

<213> Homo sapiens

<400> 4424

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		20					25					30			
Ser	Gly	Asp	Glu	Glu	Glu	Glu	Gly	Pro	Ile	Val	Leu	Gly	Arg	Arg	Gln
		35					40					45			
Lys	Ala	Leu	Gly	Lys	Asn	Arg	Ser	Ala	Asp	Phe	Asn	Pro	Asp	Phe	Val
	50					55					60				
Phe	Thr	Glu	Lys	Glu	Gly	Thr	Tyr	Asp	Gly	Ser	Trp	Ala	Leu	Ala	Asp
65				70					75					80	
Val	Met	Ser	Gln	Leu	Lys	Lys	Lys	Arg	Ala	Ala	Thr	Thr	Leu	Asp	Glu
			85					90					95		
Lys	Ile	Glu	Lys	Val	Arg	Lys	Lys	Arg	Lys	Thr	Glu	Asp	Lys	Glu	Ala
			100					105					110		
Lys	Ser	Gly	Lys	Leu	Glu	Lys	Glu	Lys	Glu	Ala	Lys	Glu	Gly	Ser	Glu

115	120	125
Pro Arg Glu Gln Glu Asp	Leu Gln Glu Asn Asp	Glu Glu Gly Ser Glu
130	135	140
Asp Glu Ala Ser Glu Thr	Asp Tyr Ser Ser Ala	Asp Glu Asn Ile Leu
145	150	155
Thr Lys Ala Asp Thr	Leu Lys Val Lys Asp	Arg Lys Lys Lys Lys Lys
165	170	175
Lys Gly Gln Glu Ala Gly	Gly Phe Phe Glu Asp	Ala Ser Gln Tyr Asp
180	185	190
Glu Asn Leu Ser Phe Gln	Asp Met Asn Leu Ser	Arg Pro Leu Leu Lys
195	200	205
Ala Ile Thr Ala Met Gly	Phe Lys Gln Pro Thr	Pro Ile Gln Lys Ala
210	215	220
Cys Ile Pro Val Gly Leu	Gly Lys Asp Ile Cys	Ala Cys Ala Ala
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Thr Gly Thr Gly Lys Thr	Ala Ala Phe Ala Leu	Pro Val Leu Glu Arg
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Cys Ser His His Arg Gln	Thr Met Leu Phe Ser	Ala Thr Met Thr Asp
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<211> 5199

<212> DNA

<213> Homo sapiens

<400> 4425

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<212> PRT

<213> Homo sapiens

<400> 4426

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Thr Lys Arg Lys Ala Ile Ala Ala Glu Asp Pro Ser Leu Asp Phe Arg			
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Asn Asn Pro Thr Lys Glu Asp Leu Gly Lys Leu Gln Pro Leu Val Ala			
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Ser Tyr Leu Cys Ser Asp Val Thr Ser Val Pro Ser Lys Glu Ser Leu			
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Pro Val Leu Glu Phe Ser Leu Glu Asn Leu Arg Thr Met Asn Thr Ser			
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Leu Thr Lys Ser Ser Thr His Ser Asp His Asp Asn Ser Thr Ser Leu			
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Asn Gly Gly Lys Arg Ala Leu Thr Ser Ser Ala Leu His Gly Gly Glu			
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Thr Leu Pro His Arg Ser Leu Asp Val Glu His Thr Thr Leu Tyr Ser			
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Leu Gly Gly Phe Leu Glu Lys Thr Leu Ser Lys Leu Pro Asn Leu Glu			
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Ala Leu Arg Lys Ala Ala Ser Glu Thr Thr Thr Ser Glu Gly Leu Ser			
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Asp Val Thr Asp Ser Ser Ser Gly Gly Glu Ser Asp Ile Glu Glu Glu			
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Glu Leu Thr Arg Ala Asp Pro Glu Gln Arg His Val Pro Leu Arg Arg			
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Arg Ser Glu Trp Lys Trp Ala Ala Asp Arg Ala Ala Ile Val Ser Arg			

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<210> 4428

<211> 763

<212> PRT

<213> Homo sapiens

<400> 4428

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Ser	Lys	Glu	Leu	His	Ser	Glu	Phe	Ser	Glu	Val	Met	Asn	Glu	Ile	Trp
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Cys	Leu	Gly	Gly	Gly	Leu	Glu	Val	Ala	Ile	Ser	Cys	Gln	Tyr	Arg	Ile
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 Ser Phe Gly Phe Pro Val Gly Ala Ala Thr Leu Val Asp Glu Val Gly
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 Val Asp Val Ala Lys His Val Ala Glu Asp Leu Gly Lys Val Phe Gly

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Lys Gly Phe Leu Gly Arg Lys Ser Gly Lys Gly Phe Tyr Ile Tyr Gln		
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Glu Gly Val Lys Arg Lys Asp Leu Asn Ser Asp Met Asp Ser Ile Leu		
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Ala Ser Leu Lys Leu Pro Pro Lys Ser Glu Val Ser Ser Asp Glu Asp		
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Ile Gln Phe Arg Leu Val Thr Arg Phe Val Asn Glu Ala Val Met Cys		
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Leu Gln Glu Gly Ile Leu Ala Thr Pro Ala Glu Gly Asp Ile Gly Ala		
690	695	700
Val Phe Gly Leu Gly Phe Pro Pro Cys Leu Gly Gly Pro Phe Arg Phe		
705	710	715
Val Asp Leu Tyr Gly Ala Gln Lys Ile Val Asp Arg Leu Lys Lys Tyr		
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<210> 4429

<211> 981

<212> DNA

<213> Homo sapiens

<400> 4429

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<211> 151

<212> PRT

<213> Homo sapiens

<400> 4430

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			20					25					30		
Ser	Ala	Leu	Pro	Gln	Val	Asn	Thr	Arg	Arg	Glu	Ser	Leu	Asn	Arg	Gln
			35					40					45		
Ala	Pro	Gln	Pro	Arg	Arg	Lys	Pro	Ser	Phe	Gln	Thr	Val	Gly	Ile	Pro
			50					55				60			
Phe	Ile	Pro	Trp	His	Arg	Glu	Pro	Lys	Gly	Met	Gln	Thr	Asp	Pro	Gly
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Arg	Ala	Leu	His	Ser	Gln	Thr	Leu	Ala	Arg	Thr	Arg	Arg	Leu	Gly	Ala
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Leu	Cys	Glu	Leu	Asn	His	Leu	Gly	Ala	Met	Cys	Arg	Gly	Arg	Ala	Ser
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Ala	Ser	Glu	Val	Leu	Gly	Gly	Pro	Val	Thr	Ala	Ser	Arg	Phe	Tyr	Gly
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<210> 4431

<211> 507

<212> DNA

<213> Homo sapiens

<400> 4431

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<210> 4432
 <211> 57
 <212> PRT
 <213> Homo sapiens

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<210> 4433
 <211> 447
 <212> DNA
 <213> Homo sapiens

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 <211> 149
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 35 40 45
 Asn Gln Phe Gln Tyr Leu Pro Asp Gly Phe Leu Arg Lys Met Pro Ser
 50 55 60
 Leu Ser His Leu Asn Leu His Gln Asn Cys Leu Met Thr Leu His Ile
 65 70 75 80
 Arg Glu His Glu Pro Pro Gly Ala Leu Thr Glu Leu Asp Leu Ser His
 85 90 95
 Asn Gln Leu Ser Glu Leu His Leu Ala Pro Gly Leu Ala Ser Cys Leu
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 Gly Ser Leu Arg Leu Phe Asn Leu Ser Ser Asn Gln Leu Gly Val
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<210> 4435

<211> 783

<212> DNA

<213> Homo sapiens

<400> 4435

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<210> 4436

<211> 261

<212> PRT

<213> Homo sapiens

<400> 4436

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 Asp Glu Glu Asp Met Phe Met Val Val Asp Leu Leu Leu Gly Gly Asp
 35 40 45
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 50 55 60
 Lys Leu Tyr Ile Cys Glu Leu Ala Leu Ala Leu Glu Tyr Leu Gln Arg
 65 70 75 80
 Tyr His Ile Ile His Arg Asp Ile Lys Pro Asp Asn Ile Leu Leu Asp
 85 90 95
 Glu His Gly His Val His Ile Thr Asp Phe Asn Ile Ala Thr Val Val
 100 105 110
 Lys Gly Ala Glu Arg Ala Ser Ser Met Ala Gly Thr Lys Pro Tyr Met
 115 120 125
 Ala Pro Glu Val Phe Gln Val Tyr Met Asp Arg Gly Pro Gly Tyr Ser
 130 135 140
 Tyr Pro Val Asp Trp Trp Ser Leu Gly Ile Thr Ala Tyr Glu Leu Leu
 145 150 155 160
 Arg Gly Trp Arg Pro Tyr Glu Ile His Ser Val Thr Pro Ile Asp Glu
 165 170 175
 Ile Leu Asn Met Phe Lys Val Glu Arg Val His Tyr Ser Ser Thr Trp
 180 185 190
 Cys Lys Gly Met Val Ala Leu Leu Arg Lys Leu Leu Thr Lys Asp Pro
 195 200 205
 Glu Ser Arg Val Ser Ser Leu His Asp Ile Gln Ser Val Pro Tyr Leu
 210 215 220
 Ala Asp Met Asn Trp Asp Ala Val Phe Lys Lys Ala Leu Met Pro Gly
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<210> 4437

<211> 620

<212> DNA

<213> Homo sapiens

<400> 4437

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<210> 4438

<211> 206

<212> PRT

<213> Homo sapiens

<400> 4438

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			20					25					30		
Val	Val	Glu	Leu	Cys	Gln	Tyr	Arg	Val	Ser	Met	Leu	Lys	Met	Asp	Glu
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Ser	Thr	Leu	Leu	Arg	Glu	Ala	Gln	Glu	Leu	Ser	Leu	Glu	Lys	Leu	Gln
	50					55					60				
Gln	Ala	Val	Arg	Gln	Asn	Gly	Leu	Met	Ser	Gly	Leu	Met	Gln	Met	Leu
65					70					75					80
Leu	Leu	Lys	Val	Ser	Ala	His	Ile	Thr	Glu	Gln	Leu	Gly	Met	Ala	Pro
				85					90				95		
Gly	Gly	Glu	Phe	Arg	Glu	Ala	Phe	Lys	Glu	Ala	Ser	Lys	Val	Pro	Phe
		100						105					110		
Cys	Lys	Phe	His	Leu	Gly	Asp	Arg	Pro	Ile	Pro	Val	Thr	Phe	Lys	Arg
		115					120					125			
Ala	Ile	Ala	Ala	Leu	Ser	Phe	Trp	Gln	Lys	Val	Arg	Leu	Ala	Trp	Gly
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Leu	Cys	Phe	Leu	Ser	Asp	Pro	Ile	Ser	Lys	Asp	Val	Glu	Arg	Cys	
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Lys	Gln	Lys	Asp	Leu	Glu	Gln	Met	Met	Ala	Glu	Met	Ile	Gly	Glu	
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<210> 4439

<211> 2121

<212> DNA

<213> Homo sapiens

<400> 4439

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<210> 4440

<211> 82

<212> PRT

<213> Homo sapiens

<400> 4440

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Arg	Leu	Ser	Met	Ile	Gly	Ala	Asp	Ser	Ser	Glu	Glu	Lys	Phe	Leu	Arg
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<210> 4441

<211> 2055

<212> DNA

<213> Homo sapiens

<400> 4441

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<210> 4442

<211> 517

<212> PRT

<213> Homo sapiens

<400> 4442

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			20					25					30		
Trp	Lys	Glu	Lys	Val	Leu	Trp	Ala	Leu	Leu	Ala	Val	Leu	Leu	Ala	Ser
	35						40					45			
Trp	Arg	Leu	Trp	Ala	Ile	Lys	Asp	Phe	Gln	Glu	Cys	Thr	Trp	Gln	Val
	50					55					60				
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Phe	Phe	Glu	Gln	Glu	Pro	Val	Asp	Thr	Val	Ser	Ser	Leu	Phe	His	Met
				85					90					95	
Leu	Val	Asp	Ser	Pro	Ile	Asp	Pro	Ser	Glu	Lys	Tyr	Leu	Gly	Phe	Pro
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Tyr	Tyr	Leu	Lys	Ile	Asn	Tyr	Ser	Cys	Glu	Glu	Lys	Pro	Ser	Glu	Asp
	115						120					125			
Leu	Val	Arg	Met	Gly	His	Leu	Thr	Gly	Leu	Lys	Pro	Leu	Val	Leu	Val
	130					135					140				
Thr	Phe	Gln	Ser	Pro	Val	Asn	Phe	Tyr	Arg	Trp	Lys	Ile	Glu	Gln	Leu
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Gln	Ile	Gln	Met	Glu	Ala	Ala	Pro	Phe	Arg	Ser	Lys	Gly	Gly	Pro	Gly
				165					170					175	
Gly	Gly	Gly	Arg	Asp	Arg	Asn	Leu	Ala	Gly	Met	Asn	Ile	Asn	Gly	Phe
		180						185					190		
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	195						200					205			
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Leu	Trp	His	Thr	Val	Asp	Gln	Ser	Pro	Val	Leu	Ile	Leu	Gly	Gly	Ile
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Cys	Trp	Val	Gly	Ser	Phe	Tyr	Cys	Pro	His	Ser	Gly	Phe	Thr	Ala	Thr
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Ile	Tyr	Asp	Thr	Ile	Ala	Thr	Glu	Ser	Thr	Leu	Phe	Ile	Arg	Gln	Asn
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Gln	Leu	Val	Tyr	Tyr	Phe	Thr	Gly	Thr	Tyr	Thr	Thr	Leu	Tyr	Glu	Arg
305					310					315					320
Asn	Arg	Gly	Ser	Gly	Glu	Cys	Ala	Val	Ala	Gly	Pro	Thr	Pro	Gly	Glu

325 330 335
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 340 345 350
 Ala Ser Glu Cys Ile Lys Lys Leu Cys Pro Val Tyr Phe His Ser Asn
 355 360 365
 Gly Ser Glu Tyr Ile Met Ala Leu Thr Thr Gly Lys His Glu Gly Tyr
 370 375 380
 Val His Phe Gly Thr Ile Arg Val Thr Thr Cys Ser Ile Ile Trp Ser
 385 390 395 400
 Glu Tyr Ile Ala Gly Glu Tyr Thr Leu Leu Leu Leu Val Glu Ser Gly
 405 410 415
 Tyr Gly Asn Ala Ser Lys Arg Phe Gln Val Val Ser Tyr Asn Thr Ala
 420 425 430
 Ser Asp Asp Leu Glu Leu Leu Tyr His Ile Pro Glu Phe Ile Pro Glu
 435 440 445
 Ala Arg Gly Leu Glu Phe Leu Met Ile Leu Gly Thr Glu Ser Tyr Thr
 450 455 460
 Ser Thr Ala Met Ala Pro Lys Gly Ile Phe Cys Asn Pro Tyr Asn Asn
 465 470 475 480
 Leu Ile Phe Ile Trp Gly Asn Phe Leu Leu Gln Arg Ser Gly Thr Ser
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 <211> 692
 <212> DNA
 <213> Homo sapiens

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692

<210> 4444
<211> 108
<212> PRT
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Cys Glu Ala Ser Cys Lys Leu Asp Ser Leu Pro Ser Ala Pro Ser Pro
35 40 45
Lys Ala Gly Leu Gln Glu Val Arg Pro Ala Leu Gln Ala Thr Pro Val
50 55 60
Leu Gly Leu Leu Leu Ser Ser Ser Phe Leu Arg Val Thr Glu Pro Gly
65 70 75 80
Arg Glu Val Gly Cys Gly Leu Pro Cys Pro Tyr Ser His Leu Leu Gln
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Leu Pro Pro Cys Trp Thr His Gln Gln Gln Ser Lys
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<210> 4445
<211> 901
<212> DNA
<213> Homo sapiens

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120
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<210> 4446
 <211> 140
 <212> PRT
 <213> Homo sapiens

<400> 4446
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 35 40 45
 Thr Pro Gly Leu Pro Ser Ser Ala Val Asn Asp Asp Leu Leu Leu Leu
 50 55 60
 Pro Ser Ser Leu Pro Ser Val Thr Lys Gly Leu Pro Arg Cys Gln Leu
 65 70 75 80
 Trp Asn Glu Gly Cys Pro Trp Glu Val Met Ile Leu Arg Tyr Thr Gly
 85 90 95
 Ala Gln Gln Ile Ala Ser Ser Tyr Pro Gln Thr Val Phe Ala Cys Met
 100 105 110
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 Thr Ala Gly Gln Gln Gln His Ser Trp Ser Gln Ile
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<210> 4447
 <211> 951
 <212> DNA
 <213> Homo sapiens

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 840
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<210> 4448

<211> 263

<212> PRT

<213> Homo sapiens

<400> 4448

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		20					25					30			
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	50					55					60				
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Val	Pro	Pro	Ala	Leu	Gln	Leu	Glu	Asp	Leu	Thr	Thr	Leu	Glu	Glu	Arg
			85					90					95		
His	Pro	Asp	Leu	Val	Val	Glu	Val	Ala	His	Pro	Lys	Ile	Ile	His	Glu
		100						105					110		
Ser	Gly	Val	Gln	Ile	Leu	Arg	His	Ala	Asn	Leu	Leu	Ser	Leu	Arg	Val
	115					120						125			
Thr	Met	Ala	Thr	His	Pro	Asp	Gly	Phe	Arg	Leu	Glu	Gly	Pro	Leu	Ala
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210					215						220				
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<210> 4449

<211> 1365

<212> DNA

<213> Homo sapiens

<400> 4449

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1260

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 1365

<210> 4450
 <211> 194
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Asn Gly Met Ala Leu Lys Glu Glu Phe Glu Tyr Ile Ala Phe Arg Cys
 50 55 60
 Ala Tyr Cys Phe Phe Leu Asn Pro Ala Arg Lys Thr Arg Pro Gln Ala
 65 70 75 80
 Pro Arg Leu Pro Glu Phe Ser Phe Glu Lys Arg Gln Val Val Glu Gly
 85 90 95
 Ser Ser Ser Val Gly Pro Leu Pro Ser Gly Ser Val Leu Ser Ser Asp
 100 105 110
 Asn Gln Phe Asn Glu Glu Ser Leu Glu His Asp Val Leu Asp Asp Asn
 115 120 125
 Thr Glu Gln Thr Asp Asp Lys Ile Pro Ala Thr Glu Gln Thr Asn Gln
 130 135 140
 Val Ile Glu Lys Ala Ser Asp Ser Glu Glu Pro Glu Glu Lys Gln Glu
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 165 170 175
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 180 185 190
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<210> 4451
 <211> 1637
 <212> DNA
 <213> Homo sapiens

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 300

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360
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420
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480
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540
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600
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660
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720
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780
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840
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900
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960
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1080
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1260
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1380
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1440
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1500
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1620
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1637

<210> 4452

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4452

Met Gly Ala Ala Ala Ser Gln Cys Cys Val Ala Pro Ala Leu His Trp

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 20 25 30
 Lys Tyr Asn Phe Tyr Leu Pro Phe Phe Phe Gly Pro Ile Met Thr
 35 40 45
 Phe Asp Arg Phe His Ala Gln Val Ser Gln Val Glu Pro Val Arg Arg
 50 55 60
 Glu Gly Glu Leu Trp His Ile Arg Ala Gln Ala Gly Leu Ser Val Val
 65 70 75 80
 Ala Ile Met Ala Val Asp Ile Phe Phe His Phe Phe Tyr Ile Leu Thr
 85 90 95
 Ile Pro Ser Asp Leu Lys Phe Ala Asn Arg Leu Pro Asp Ser Ala Leu
 100 105 110
 Ala Gly Leu Ala Tyr Ser Asn Leu Val Tyr Asp Trp Val Lys Ala Ala
 115 120 125
 Val Leu Phe Gly Val Val Asn Thr Val Ala Cys Leu Asp His Leu Asp
 130 135 140
 Pro Pro Gln Pro Pro Lys Cys Ile Thr Ala Leu Tyr Val Phe Ala Glu
 145 150 155 160
 Thr His Phe Asp Arg Gly Ile Asn Asp Trp Leu Cys Lys Tyr Val Tyr
 165 170 175
 Asn His Ile Gly Gly Glu His Ser Ala Val Ile Pro Glu Leu Ala Ala
 180 185 190
 Thr Val Ala Thr Phe Ala Ile Thr Thr Leu Trp Leu Gly Pro Cys Asp
 195 200 205
 Ile Val Tyr Leu Trp Ser Phe Leu Asn Cys Phe Gly Leu Asn Phe Glu
 210 215 220
 Leu Trp Met Gln Lys Leu Ala Glu Trp Gly Pro Leu Ala Arg Ile Glu
 225 230 235 240
 Ala Ser Leu Ser Val Gln Met Ser Arg Arg Val Arg Ala Leu Phe Gly
 245 250 255
 Ala Met Asn Phe Trp Ala Ile Ile Met Tyr Asn Leu Val Ser Leu Asn
 260 265 270
 Ser Leu Lys Phe Thr Glu Leu Val Ala Arg Arg Leu Leu Leu Thr Gly
 275 280 285
 Phe Pro Gln Thr Thr Leu Ser Ile Leu Phe Val Thr Tyr Cys Gly Val
 290 295 300
 Gln Leu Val Lys Glu Arg Glu Arg Thr Leu Ala Leu Glu Glu Glu Gln
 305 310 315 320
 Lys Gln Asp Lys Glu Lys Pro Glu
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<210> 4453

<211> 685

<212> DNA

<213> Homo sapiens

<400> 4453

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 120
 gcacatctat acccactctg gctctgaaag gcttgtcaac caaaaatggg cagctggggc
 180

taaggcatat ttaaacaag gctccaaagg acccctttca cttgggtcta gcatccagcc
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 tctctctcag caaaggcagg attgtggtcc cttgtgtttt ctgaacaggg cccagggcag
 300
 ccaaggcatg ccactactgc agcactcaac cctctgggtca cagtggagtc gccgggtccag
 360
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 420
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 480
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 540
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 600
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 660
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 685

<210> 4454

<211> 207

<212> PRT

<213> Homo sapiens

<400> 4454

Met	Ile	Ile	Leu	Val	Val	Thr	Leu	His	Thr	Cys	His	Pro	Val	Pro	Ser
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Pro	Gly	Trp	His	Ile	Tyr	Thr	His	Ser	Gly	Ser	Glu	Arg	Leu	Val	Asn
			20					25					30		
Gln	Lys	Trp	Ala	Ala	Gly	Ala	Lys	Ala	Tyr	Leu	Asn	Lys	Gly	Ser	Lys
		35					40					45			
Gly	Pro	Leu	Ser	Leu	Gly	Ser	Ser	Ile	Gln	Pro	Leu	Ser	Gln	Gln	Arg
	50					55					60				
Gln	Asp	Cys	Gly	Pro	Leu	Cys	Phe	Leu	Asn	Arg	Ala	Gln	Gly	Ser	Gln
65					70				75						80
Gly	Met	Pro	Ser	Leu	Gln	His	Ser	Thr	Leu	Trp	Ser	Gln	Trp	Ser	Arg
			85					90					95		
Arg	Ser	Ser	Leu	Lys	Tyr	Tyr	Tyr	Arg	Gly	Glu	Arg	Pro	Ile	Leu	Ala
			100					105					110		
Met	Leu	Leu	Tyr	Leu	Pro	Arg	Pro	Lys	Thr	Val	Leu	Cys	Ser	Phe	Ser
		115					120					125			
Cys	Ser	Glu	Ile	Arg	Ser	Gln	Asn	Ser	Arg	Arg	His	Ser	Phe	Gly	Lys
		130				135					140				
Lys	Gly	His	Ala	Phe	Val	Leu	Tyr	Leu	Ile	Leu	Val	Ser	Glu	Ala	Leu
145					150					155					160
Ile	Pro	Val	Asp	Cys	Gly	Leu	Arg	Trp	Ser	Pro	Pro	Gln	Asp	Pro	Gln
			165					170					175		
Leu	Gln	Arg	Gln	Arg	Arg	Met	Lys	Glu	Glu	Gln	Pro	Pro	Gln	Asp	Leu
		180					185						190		
Leu	His	Trp	Glu	Pro	His	Pro	Thr	Phe	Ser	Val	Pro	Phe	Thr	Arg	
		195					200						205		

<210> 4455

<211> 882

<212> DNA

<213> Homo sapiens

<400> 4455

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 120
 aagctgttca ttgggcagat cccccgaac ctggatgaga aggacctcaa gcccctcttc
 180
 gaggagtttg gcaaaatcta cgagcttacg gttctgaagg acaggttcac aggcatgcac
 240
 aaaggctgcg ccttcctcac ctactgcgag cgtgagtcag cgctgaaggc ccagagcgcg
 300
 ctgcacgagc agaagactct gcccgggatg aaccggccga tccaggtgaa gcctgcggac
 360
 agcgagagcc gaggagatag tagctgcctg cgccagcccc cttcacatag aaaactcttc
 420
 gtgggcatgc tcaacaagca acagtccgag gacgacgtgc gccgcctttt cgaggccttt
 480
 gggaacatcg aggagtgcac catcctgcgc gggcccgcac gcaacagcaa ggggtgcgcg
 540
 tttgtgaagt actcctccca cgccgaggcg caggccgccca tcaacgcgct acacggcagc
 600
 cagaccatgc cgggagcctc gtccagtctg gtggtaagt tcgccgacac cgacaaggag
 660
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 720
 atcccttttcg gggcctacgg cgctacgct caggcactga tgcagcagca agcggccctg
 780
 atggcatcag tcgcgcaggg cggtacctg aaccccatgg ctgccttcgc tgccgcccag
 840
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 882

<210> 4456

<211> 261

<212> PRT

<213> Homo sapiens

<400> 4456

Met	Lys	Asp	His	Asp	Ala	Ile	Lys	Leu	Phe	Ile	Gly	Gln	Ile	Pro	Arg
1				5				10					15		
Asn	Leu	Asp	Glu	Lys	Asp	Leu	Lys	Pro	Leu	Phe	Glu	Glu	Phe	Gly	Lys
		20					25					30			
Ile	Tyr	Glu	Leu	Thr	Val	Leu	Lys	Asp	Arg	Phe	Thr	Gly	Met	His	Lys
	35					40					45				
Gly	Cys	Ala	Phe	Leu	Thr	Tyr	Cys	Glu	Arg	Glu	Ser	Ala	Leu	Lys	Ala
	50				55					60					
Gln	Ser	Ala	Leu	His	Glu	Gln	Lys	Thr	Leu	Pro	Gly	Met	Asn	Arg	Pro
65				70				75					80		
Ile	Gln	Val	Lys	Pro	Ala	Asp	Ser	Glu	Ser	Arg	Gly	Asp	Ser	Ser	Cys
			85					90					95		
Leu	Arg	Gln	Pro	Pro	Ser	His	Arg	Lys	Leu	Phe	Val	Gly	Met	Leu	Asn

100 105 110
 Lys Gln Gln Ser Glu Asp Asp Val Arg Arg Leu Phe Glu Ala Phe Gly
 115 120 125
 Asn Ile Glu Glu Cys Thr Ile Leu Arg Gly Pro Asp Gly Asn Ser Lys
 130 135 140
 Gly Cys Ala Phe Val Lys Tyr Ser Ser His Ala Glu Ala Gln Ala Ala
 145 150 155 160
 Ile Asn Ala Leu His Gly Ser Gln Thr Met Pro Gly Ala Ser Ser Ser
 165 170 175
 Leu Val Val Lys Phe Ala Asp Thr Asp Lys Glu Arg Thr Met Arg Arg
 180 185 190
 Met Gln Gln Met Ala Gly Gln Met Gly Met Phe Asn Pro Met Ala Ile
 195 200 205
 Pro Phe Gly Ala Tyr Gly Ala Tyr Ala Gln Ala Leu Met Gln Gln Gln
 210 215 220
 Ala Ala Leu Met Ala Ser Val Ala Gln Gly Gly Tyr Leu Asn Pro Met
 225 230 235 240
 Ala Ala Phe Ala Ala Gln Met Gln Gln Met Ala Ala Leu Asn Met
 245 250 255
 Asn Gly Leu Ala Ala
 260

<210> 4457
 <211> 1491
 <212> DNA
 <213> Homo sapiens

<400> 4457
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 120
 tatgcgggga catcggggca cccaggagg gctgaccca gctcacctgg cctgccttc
 180
 cccctgcagc tgggtgtacct tatgaacaac cagaagggcc agctggtcaa gaggctcgtg
 240
 cccgtggagc agcttctgat gtatcaacag cacaccagcc actatgactt ggagcggaaa
 300
 gggggctact tgatgctctc ctcatcgac ttctgcccct tctcggtgat ggcctgcgg
 360
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 420
 gtcttgagc gctcgggctt ccacaacgag aactcgctcg ccatctacca gggcctggtc
 480
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 540
 aattggcgaa gcgcgggagg cgtgtccata gaaatggaca gctacgaaaa gatctacaac
 600
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 660
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 720
 cgcgggacca gaggggagcc cgaagggcgg ggcgagggt accagaatct gggagcctgg
 780

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 840
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 900
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 1080
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 1320
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 1380
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 1440
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 1491

<210> 4458

<211> 405

<212> PRT

<213> Homo sapiens

<400> 4458

Met	Asn	Asn	Gln	Lys	Gly	Gln	Leu	Val	Lys	Arg	Leu	Val	Pro	Val	Glu
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Gln	Leu	Leu	Met	Tyr	Gln	Gln	His	Thr	Ser	His	Tyr	Asp	Leu	Glu	Arg
		20						25					30		
Lys	Gly	Gly	Tyr	Leu	Met	Leu	Ser	Phe	Ile	Asp	Phe	Cys	Pro	Phe	Ser
		35					40					45			
Val	Met	Arg	Leu	Arg	Ser	Leu	Pro	Ser	Pro	Gln	Arg	Tyr	Thr	Arg	Gln
		50				55					60				
Glu	Arg	Tyr	Arg	Ala	Arg	Pro	Pro	Arg	Val	Leu	Glu	Arg	Ser	Gly	Phe
65				70						75				80	
His	Asn	Glu	Asn	Ser	Leu	Ala	Ile	Tyr	Gln	Gly	Leu	Val	Tyr	Tyr	Leu
			85						90					95	
Leu	Trp	Leu	His	Ser	Val	Tyr	Asp	Lys	Asp	Tyr	Tyr	Phe	Phe	Leu	Ala
		100						105					110		
Ser	Asn	Trp	Arg	Ser	Ala	Gly	Gly	Val	Ser	Ile	Glu	Met	Asp	Ser	Tyr
		115				120						125			
Glu	Lys	Ile	Tyr	Asn	Leu	Glu	Ser	Ala	Tyr	Glu	Leu	Pro	Glu	Arg	Ile
		130				135						140			
Phe	Leu	Asp	Lys	Gly	Thr	Glu	Tyr	Ser	Phe	Ala	Ile	Phe	Leu	Ser	Ala
145				150						155				160	
Gln	Gly	His	Ser	Phe	Arg	Thr	Gln	Ser	Glu	Leu	Gly	Leu	Arg	Gly	Thr
			165						170					175	
Arg	Val	Glu	Pro	Glu	Gly	Arg	Gly	Glu	Gly	Tyr	Gln	Asn	Leu	Gly	Ala

	180		185		190
Trp Gly Ala	Gly Thr Pro Ser Glu Gly Arg Gly Leu Ser Val Asp Val				
195		200		205	
Gly Val Val	Leu Ala Asp Pro Gly Cys Ile Glu Ala Ser Val Lys Gln				
210		215		220	
Glu Val Leu	Ile Asn Arg Asn Ser Val Leu Phe Ser Ile Thr Leu Lys				
225		230		235	240
Asp Lys Lys	Leu Cys Tyr Asp Gln Gly Ile Ser Gly His His Leu Met				
	245		250		255
Glu Thr Ser	Met Thr Val Asn Val Arg Ser Lys Pro Gly Gly Glu Gly				
	260		265		270
Lys Arg Leu	Ala Phe Asp Ile Thr Tyr Thr Leu Glu Tyr Ser Arg Leu				
	275		280		285
Lys Asn Lys	His Tyr Phe Asp Cys Val Asn Val Asn Pro Glu Met Pro				
	290		295		300
Cys Phe Leu	Phe Arg Asp Ser Val Tyr Val Leu Leu Val Val Gly Gly				
305		310		315	320
Gly Pro Thr	Leu Asp Ser Leu Lys Asp Tyr Ser Glu Asp Glu Ile Tyr				
	325		330		335
Arg Phe Asn	Ser Pro Leu Asp Lys Thr Asn Ser Leu Ile Trp Thr Thr				
	340		345		350
Arg Thr Thr	Arg Thr Thr Lys Asp Ser Ala Phe His Ile Met Ser His				
	355		360		365
Glu Ser Pro	Gly Ile Glu Trp Leu Cys Leu Glu Asn Ala Pro Cys Tyr				
	370		375		380
Asp Asn Val	Pro Gln Gly Ile Phe Ala Pro Glu Phe Phe Phe Lys Val				
385		390		395	400
Leu Val Ser	Asn Arg				
	405				

<210> 4459

<211> 1114

<212> DNA

<213> Homo sapiens

<400> 4459

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 120
 gccgattgat ctaagaaact ttattgctca gaaccttccc tccctgggca atggaaagag
 180
 ctttggagac cagcccatgg ggacagagtc agaggcactg ggtgtaaaaa aagagcgagc
 240
 gtgtggcaca tttgttccat tgtcatgtgt gggataggca ggaggagggg gtaatctaga
 300
 agccccacat ctagggcctt ctagggaccc agatatgcc ccttaggcaa ggctcacatg
 360
 ccaaagcaaa gcagatgagg tcagcctggc ttgggttgag ggctcagtgc ctcttagcct
 420
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 480
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 540

agacagaacc agcgagagac accagggagc tcagcagcat caggacagag gccagcgtg
 600
 tccgcaggca acctaacaat agctgtagtg tgtagaagat gcaaccgaat atgctgttgg
 660
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 720
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 780
 aatccccgtc ccgggcgcgc gccgccttca cgtgcagcgc gtagagcgag agcactaagc
 840
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 900
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 960
 aatggccgcg cccctcctgg cctctgact cggcgattgg ccggccgtgc tcgcactcca
 1020
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 1114

<210> 4460

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4460

Trp	Arg	Cys	Pro	Arg	Arg	Arg	Ala	Arg	Gly	Asn	Pro	Gly	Pro	Gly	Arg
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Ala	Pro	Pro	Ser	Arg	Ala	Ala	Arg	Arg	Ala	Arg	Ala	Leu	Ser	Pro	Ser
			20					25				30			
Gly	Lys	Glu	Arg	Ala	Ala	Pro	Ser	Gln	Gly	Ser	Pro	Arg	Cys	Cys	Pro
	35					40					45				
Leu	Ser	Pro	Gly	Ser	Ala	Arg	Gly	Ala	Arg	Gly	Glu	Asn	Gln	Pro	Arg
	50				55					60					
Ser	Arg	Gly	Arg	Ala	Ala	Asn	Gly	Arg	Ala	Pro	Pro	Gly	Pro	Leu	Thr
65				70					75					80	
Arg	Arg	Leu	Ala	Gly	Arg	Ala	Arg	Thr	Pro	Arg	Pro	Lys	Trp	Leu	Phe
			85					90					95		
Gln	Gly	Ala	Ser	Gln	Ala	Gly	Glu	Leu	Gly	Lys	Gln	Arg	Arg	Met	Pro
		100						105					110		
Gly	Leu	Val	Lys	Arg	Val	Arg	Asp	Val							
		115					120								

<210> 4461

<211> 488

<212> DNA

<213> Homo sapiens

<400> 4461

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 120

tacctggcag acttcccca ggaactgtcc atcaaataca tggccagatc gttccgtggg
 180
 gctgtggcta ttgtcacaga gacggaggag gtgggctgcc ccgcccttct cccattccc
 240
 tctctgccca ccccaaac ccaggggcc ctctttcccc cgtcacagta aaggagccaa
 300
 gggaaagggg caccctcggg gaccctgaga aagggcagtg aagctccatt tataactgaa
 360
 actcctggaa ctcagggtaa gtgtcagctc caaagtcacg cagaccggag ctatgatccg
 420
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 480
 catttaaa
 488

<210> 4462
 <211> 96
 <212> PRT
 <213> Homo sapiens

<400> 4462
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 20 25 30
 Ser Ser Asn Lys Glu Asn Phe Ile Tyr Leu Ala Asp Phe Pro Lys Glu
 35 40 45
 Leu Ser Ile Lys Tyr Met Ala Arg Ser Phe Arg Gly Ala Val Ala Ile
 50 55 60
 Val Thr Glu Thr Glu Glu Val Gly Cys Pro Ala Leu Leu Pro Ile Pro
 65 70 75 80
 Ser Leu Pro Thr Pro Lys Pro Gln Gly Pro Leu Phe Pro Pro Ser Gln
 85 90 95

<210> 4463
 <211> 2662
 <212> DNA
 <213> Homo sapiens

<400> 4463
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 120
 cctcccatgg gccatttct cctggaggc cctcgcgtct tgctgagccc ggggagttag
 180
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 240
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 300
 gcggagggcg ccgatttggg gctgggggcc gccgtccccg tggagctgag gcgggagcga
 360
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 420

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<210> 4464
 <211> 519
 <212> PRT
 <213> Homo sapiens

<400> 4464
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 Val Arg Asp Val Ala Lys Met Leu Pro Thr Leu Gly Gly Glu Glu Gly
 35 40 45
 Val Ser Arg Ile Tyr Ala Asp Pro Thr Lys Arg Leu Glu Leu Tyr Phe
 50 55 60
 Arg Pro Lys Asp Pro Tyr Cys His Pro Val Cys Ala Asn Arg Phe Ser
 65 70 75 80
 Thr Ser Ser Leu Leu Leu Arg Ile Arg Lys Arg Thr Arg Arg Gln Lys
 85 90 95
 Gly Val Leu Gly Thr Glu Ala His Ser Glu Val Thr Phe Asp Met Glu
 100 105 110
 Ile Leu Gly Ile Ile Ser Thr Ile Tyr Lys Phe Gln Gly Met Ser Asp
 115 120 125
 Phe Gln Tyr Leu Ala Val His Thr Glu Ala Gly Gly Lys His Thr Ser
 130 135 140
 Met Tyr Asp Lys Val Leu Met Leu Arg Pro Glu Lys Glu Ala Phe Phe
 145 150 155 160
 His Gln Glu Leu Pro Leu Tyr Ile Pro Pro Pro Ile Phe Ser Arg Leu
 165 170 175
 Asp Ala Pro Val Asp Tyr Phe Tyr Arg Pro Glu Thr Gln His Arg Glu
 180 185 190
 Gly Tyr Asn Asn Pro Pro Ile Ser Gly Glu Asn Leu Ile Gly Leu Ser

195 200 205
 Arg Ala Arg Arg Pro His Asn Ala Ile Phe Val Asn Phe Glu Asp Glu
 210 215 220
 Glu Val Pro Lys Gln Pro Leu Glu Ala Ala Ala Gln Thr Trp Arg Arg
 225 230 235 240
 Val Cys Thr Asn Pro Val Asp Arg Lys Val Glu Glu Glu Leu Arg Lys
 245 250 255
 Leu Phe Asp Ile Arg Pro Ile Trp Ser Arg Asn Ala Val Lys Ala Asn
 260 265 270
 Ile Ser Val His Pro Asp Lys Leu Lys Val Leu Leu Pro Phe Ile Ala
 275 280 285
 Tyr Tyr Met Ile Thr Gly Pro Trp Arg Ser Leu Trp Ile Arg Phe Gly
 290 295 300
 Tyr Asp Pro Arg Lys Asn Pro Asp Ala Lys Ile Tyr Gln Val Leu Asp
 305 310 315 320
 Phe Arg Ile Arg Cys Gly Met Lys His Gly Tyr Ala Pro Ser Asp Leu
 325 330 335
 Pro Val Lys Ala Lys Arg Ser Thr Tyr Asn Tyr Ser Leu Pro Ile Thr
 340 345 350
 Val Lys Lys Thr Ser Ser Gln Leu Val Thr Met His Asp Leu Lys Gln
 355 360 365
 Gly Leu Gly Arg Ser Gly Thr Ser Gly Ala Arg Lys Pro Ala Ser Ser
 370 375 380
 Lys Tyr Lys Leu Lys Asp Ser Val Tyr Ile Phe Arg Glu Gly Ala Leu
 385 390 395 400
 Pro Pro Tyr Arg Gln Met Phe Tyr Gln Leu Cys Asp Leu Asn Val Glu
 405 410 415
 Glu Leu Gln Lys Ile Ile His Arg Asn Asp Gly Ala Glu Asn Ser Cys
 420 425 430
 Thr Glu Arg Asp Gly Trp Cys Leu Pro Lys Thr Ser Asp Glu Leu Arg
 435 440 445
 Asp Thr Met Ser Leu Met Ile Arg Gln Thr Ile Arg Ser Lys Arg Pro
 450 455 460
 Ala Leu Phe Ser Ser Ser Ala Lys Ala Asp Gly Gly Lys Glu Gln Leu
 465 470 475 480
 Thr Tyr Glu Ser Gly Glu Asp Glu Glu Asp Glu Glu Glu Glu Glu
 485 490 495
 Glu Glu Glu Asp Phe Lys Pro Ser Asp Gly Ser Glu Asn Glu Met Glu
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 Thr Glu Ile Leu Asp Tyr Val
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<210> 4465
 <211> 1291
 <212> DNA
 <213> Homo sapiens

<400> 4465
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 180

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 240
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 300
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 420
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 480
 catgaaagca agatgttgct caaatgccaa ggtgtgtctg accaagctgt ggccgaggcc
 540
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 600
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 660
 aaggtcaga tttgctcatt agtggagttg ctggccacca ctctgaagca agctcatgcc
 720
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 780
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 840
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 960
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 1020
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 1080
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 1140
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 1291

<210> 4466

<211> 93

<212> PRT

<213> Homo sapiens

<400> 4466

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Leu	Arg	Gln	Met	Val	Gly	Glu	Arg	Tyr	Arg	Asp	Leu	Ile	Glu	Ala	Xaa
			20					25					30		
Asp	Thr	Ile	Gly	Gln	Met	Arg	Arg	Xaa	Ala	Val	Gly	Leu	Val	Asp	Ala
			35				40					45			
Val	Lys	Ala	Thr	Asp	Gln	Tyr	Cys	Ala	Arg	Leu	Arg	Gln	Ala	Gly	Ser
	50					55					60				
Ala	Ala	Pro	Arg	Pro	Pro	Arg	Ala	Gln	Gln	Pro	Gln	Gln	Pro	Ser	Gln

65 70 75
Glu Lys Phe Tyr Ser Met Ala Ala Arg Ser Ser Tyr Ser
85 90

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<210> 4467
<211> 1142
<212> DNA
<213> Homo sapiens
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<400> 4467
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180
caagcttttg acattggcaa ccatttcaat gagtttgcag gcgtgaatga ggtggattac
240
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300
aaggggatgg ccgtgacccc cagggaggtg caaaggctct acgtgcaagt caacaagttt
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gccctggcgt ctacttctt ctgggtctc tgggcctca tcagaacca gtactccacc
420
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720
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gt
1142

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<210> 4468
<211> 170
<212> PRT

<213> Homo sapiens

<400> 4468

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 Lys Glu His Leu Ser Gln Leu Glu Ser Pro Val Val Phe Cys His Asn
 20 25 30
 Asp Leu Leu Cys Lys Asn Ile Ile Tyr Asp Ser Ile Lys Gly His Val
 35 40 45
 Arg Phe Ile Asp Tyr Glu Tyr Ala Gly Tyr Asn Tyr Gln Ala Phe Asp
 50 55 60
 Ile Gly Asn His Phe Asn Glu Phe Ala Gly Val Asn Glu Val Asp Tyr
 65 70 75 80
 Cys Leu Tyr Pro Ala Arg Glu Thr Gln Leu Gln Trp Leu His Tyr Tyr
 85 90 95
 Leu Gln Ala Gln Lys Gly Met Ala Val Thr Pro Arg Glu Val Gln Arg
 100 105 110
 Leu Tyr Val Gln Val Asn Lys Phe Ala Leu Ala Ser His Phe Phe Trp
 115 120 125
 Ala Leu Trp Ala Leu Ile Gln Asn Gln Tyr Ser Thr Ile Asp Phe Asp
 130 135 140
 Phe Leu Arg Tyr Ala Val Ile Arg Phe Asn Gln Tyr Phe Lys Val Lys
 145 150 155 160
 Pro Gln Ala Ser Ala Leu Glu Met Pro Lys
 165 170

<210> 4469

<211> 409

<212> DNA

<213> Homo sapiens

<400> 4469

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 180
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 240
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<210> 4470

<211> 55

<212> PRT

<213> Homo sapiens

<400> 4470

Ile Tyr Asp Ala Gln His Ala Asn Leu Ala Gly Thr Leu Ser Gly His

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Ala Ser Trp	Val Leu Asn Val	Ala Phe Cys Pro Asp Asp	Thr His Phe
20	25	30	
Val Ser Arg	Ser Gln Cys Trp	Ser Gly Leu Gly Trp	Pro Arg Gln Leu
35	40	45	
Glu Ser Arg	Arg Trp Thr Thr		
50	55		

<210> 4471

<211> 1771

<212> DNA

<213> Homo sapiens

<400> 4471

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 120
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 180
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 240
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 1771

<210> 4472
 <211> 160
 <212> PRT
 <213> Homo sapiens

<400> 4472
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 Ala Pro Leu Pro Gly Leu Ser Ala Pro Gly Arg Leu Phe Asp Gln Arg
 20 25 30
 Phe Gly Glu Gly Leu Leu Glu Ala Glu Leu Ala Ala Leu Cys Pro Thr
 35 40 45
 Thr Leu Ala Pro Tyr Tyr Leu Arg Ala Pro Ser Val Ala Leu Pro Val
 50 55 60
 Ala Gln Val Pro Thr Asp Pro Gly His Phe Ser Val Leu Leu Asp Val
 65 70 75 80
 Lys His Phe Ser Pro Glu Glu Ile Ala Val Lys Val Val Gly Glu His
 85 90 95
 Val Glu Val His Ala Arg His Glu Glu Arg Pro Asp Glu His Gly Phe
 100 105 110
 Val Ala Arg Glu Phe His Arg Arg Tyr Arg Leu Pro Pro Gly Val Asp
 115 120 125
 Pro Ala Ala Val Thr Ser Ala Leu Ser Pro Glu Gly Val Leu Ser Ile
 130 135 140
 Gln Ala Ala Pro Ala Ser Ala Gln Ala Pro Pro Ala Ala Ala Lys
 145 150 155 160

<210> 4473
 <211> 1255
 <212> DNA
 <213> Homo sapiens

<400> 4473

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 120
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 180
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 240
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 300
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 360
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 420
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 480
 gactcccagc atctggcaac aggaactcac atggggaaaag tgaacatttt tgggtgtggaa
 540
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 660
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 780
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 1020
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 1255

<210> 4474

<211> 305

<212> PRT

<213> Homo sapiens

<400> 4474

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Asp	Ala	Ile	Trp	Ser	Val	Ala	Trp	Gly	Thr	Asn	Lys	Lys	Glu	Asn	Ser
		20						25					30		
Glu	Thr	Val	Val	Thr	Gly	Ser	Leu	Asp	Asp	Leu	Val	Lys	Val	Trp	Lys

35 40 45
 Trp Arg Asp Glu Arg Leu Asp Leu Gln Trp Ser Leu Glu Gly His Gln
 50 55 60
 Leu Gly Val Val Ser Val Asp Ile Ser His Thr Leu Pro Ile Ala Ala
 65 70 75 80
 Ser Ser Ser Leu Asp Ala His Ile Arg Leu Trp Asp Leu Glu Asn Gly
 85 90 95
 Lys Gln Met Lys Ser Ile Asp Ala Gly Pro Val Asp Ala Trp Thr Leu
 100 105 110
 Ala Phe Ser Pro Asp Ser Gln His Leu Ala Thr Gly Thr His Met Gly
 115 120 125
 Lys Val Asn Ile Phe Gly Val Glu Ser Gly Lys Lys Glu Tyr Ser Leu
 130 135 140
 Asp Thr Arg Gly Lys Phe Ile Leu Ser Ile Ala Tyr Ser Pro Asp Gly
 145 150 155 160
 Lys Tyr Leu Ala Ser Gly Ala Ile Asp Gly Ile Ile Asn Ile Phe Asp
 165 170 175
 Ile Ala Thr Gly Lys Leu Leu His Thr Leu Glu Gly His Ala Met Pro
 180 185 190
 Ile Arg Ser Leu Thr Phe Ser Pro Asp Ser Gln Leu Leu Val Thr Ala
 195 200 205
 Ser Asp Asp Gly Tyr Ile Lys Ile Tyr Asp Val Gln His Ala Asn Leu
 210 215 220
 Ala Gly Thr Leu Ser Gly His Ala Ser Trp Val Leu Asn Val Ala Phe
 225 230 235 240
 Cys Pro Asp Asp Thr His Phe Val Ser Ser Ser Ser Asp Lys Ser Val
 245 250 255
 Lys Val Trp Asp Val Gly Thr Arg Thr Cys Val His Thr Phe Phe Asp
 260 265 270
 His Gln Asp Gln Val Trp Gly Val Lys Tyr Asn Gly Asn Gly Ser Lys
 275 280 285
 Ile Val Ser Val Gly Asp Asp Gln Glu Ile His Ile Tyr Asp Cys Pro
 290 295 300
 Ile
 305

<210> 4475

<211> 475

<212> DNA

<213> Homo sapiens

<400> 4475

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 180
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 240
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 300
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<210> 4476
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 4476
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 20 25 30
 Ser Arg Arg Ser Ser Ser Ser Gln Pro Leu Pro Gln Ser Ala Arg Thr
 35 40 45
 Gly His Thr Glu Gly Ser Val Ala Leu His Gly Ser Pro Ala Ser Arg
 50 55 60
 Gln Thr Ser Gln Arg Trp Thr Val Cys Gln Gly Trp Asp Trp Asn Ser
 65 70 75 80
 Arg Arg Ser Leu Asp Thr Ser Gly Ile Arg Glu Thr Ser Leu Gly Arg
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<210> 4477
 <211> 1153
 <212> DNA
 <213> Homo sapiens

<400> 4477
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 1153

<210> 4478
 <211> 118
 <212> PRT
 <213> Homo sapiens

<400> 4478
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 35 40 45
 Trp Glu Gly Asn Met Lys Glu Glu Asn Asn Asn Glu Ser Lys Ser Thr
 50 55 60
 Ser Ile Pro Gly His Phe Ile His Phe Gln Asp Tyr Cys Ala Pro Ile
 65 70 75 80
 Ser Thr Leu Met Val Cys Val Asp Thr Ala Gln Gly Cys Ile Ser Leu
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 Arg Cys His Thr Phe Pro Leu Val Ser Ser Asp Ile Met Pro Gln Phe
 100 105 110
 Leu Gln Ser His Ile Lys
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<210> 4479
 <211> 2158
 <212> DNA
 <213> Homo sapiens

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 120
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 180

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240
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2158

<210> 4480

<211> 308

<212> PRT

<213> Homo sapiens

<400> 4480

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		20					25						30		
Asp	Tyr	Gly	Glu	Pro	Glu	Arg	Gly	Gly	Gly	Pro	Arg	Ala	Ala	Gln	Gly
	35					40					45				
Glu	Met	Ser	Ser	Thr	Ser	Ser	Lys	Arg	Ala	Pro	Thr	Thr	Ala	Thr	Gln
	50				55					60					
Arg	Leu	Lys	Gln	Asp	Tyr	Leu	Arg	Ile	Lys	Lys	Asp	Pro	Val	Pro	Tyr
65			70						75					80	
Ile	Cys	Ala	Glu	Pro	Leu	Pro	Ser	Asn	Ile	Leu	Glu	Trp	His	Tyr	Val
		85						90						95	
Val	Arg	Gly	Pro	Glu	Met	Thr	Pro	Tyr	Glu	Gly	Gly	Tyr	Tyr	His	Gly
		100					105						110		
Lys	Leu	Ile	Phe	Pro	Arg	Glu	Phe	Pro	Phe	Lys	Pro	Pro	Ser	Ile	Tyr
	115					120					125				
Met	Ile	Thr	Pro	Asn	Gly	Arg	Phe	Lys	Cys	Asn	Thr	Arg	Leu	Cys	Leu
	130				135						140				
Ser	Ile	Thr	Asp	Phe	His	Pro	Asp	Thr	Trp	Asn	Pro	Ala	Trp	Ser	Val
145				150					155					160	
Ser	Thr	Ile	Leu	Thr	Gly	Leu	Leu	Ser	Phe	Met	Val	Glu	Lys	Gly	Pro
		165						170						175	
Thr	Leu	Gly	Ser	Ile	Glu	Thr	Ser	Asp	Phe	Thr	Lys	Arg	Gln	Leu	Ala
		180					185						190		
Val	Gln	Ser	Leu	Ala	Phe	Asn	Leu	Lys	Asp	Lys	Val	Phe	Cys	Glu	Leu
	195					200					205				
Phe	Pro	Glu	Val	Val	Glu	Glu	Ile	Lys	Gln	Lys	Gln	Lys	Ala	Gln	Asp
	210				215						220				
Glu	Leu	Ser	Ser	Arg	Pro	Gln	Thr	Leu	Pro	Leu	Pro	Asp	Val	Val	Pro
225				230						235				240	
Asp	Gly	Glu	Thr	His	Leu	Val	Gln	Asn	Gly	Ile	Gln	Leu	Leu	Asn	Gly
		245						250						255	
His	Ala	Pro	Gly	Ala	Val	Pro	Asn	Leu	Ala	Gly	Leu	Gln	Gln	Ala	Asn
		260					265						270		
Arg	His	His	Gly	Leu	Leu	Gly	Gly	Ala	Leu	Ala	Asn	Leu	Phe	Val	Ile

275 280 285
 Val Gly Phe Ala Ala Phe Ala Tyr Thr Val Lys Tyr Val Leu Arg Ser
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 Ile Ala Gln Glu
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<210> 4481
 <211> 320
 <212> DNA
 <213> Homo sapiens

<400> 4481
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 120
 acgtggggag gggaccccg gctgggcttc gtaggggctt caaggacccc tgacttctg
 180
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 320

<210> 4482
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 4482
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 Trp Gly Leu Gly Thr Ser Cys Cys Ala Ala Arg Lys Gln Asp Ser Ala
 20 25 30
 Cys Pro Pro Thr Trp Gly Gly Asp Pro Gly Leu Gly Phe Val Gly Ala
 35 40 45
 Ser Arg Thr Pro Asp Phe Trp Gly Val Pro Asp Ser Arg Gly Gly Pro
 50 55 60
 Arg Ala Gly Leu Gly His Val Gln Ser Leu Ile Asp Leu Cys Pro Phe
 65 70 75 80
 Leu Pro Leu Pro Leu Cys Ala Ser Leu Asp Ser Pro Arg Glu Phe Ser
 85 90 95
 Arg Met Gly Thr Gln
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<210> 4483
 <211> 1852
 <212> DNA
 <213> Homo sapiens

<400> 4483
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120
ggaggatctc ggatgacaga cctaacttcc agcattccca aacctctgct tccagttggg
180
aacaaacctt taatttggtt cccattgaac ctgcttgagc gtgttggtt tgaagaagtc
240
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300
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420
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720
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<210> 4484

<211> 452

<212> PRT

<213> Homo sapiens

<400> 4484

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			20					25					30		
Lys	Pro	Leu	Ile	Trp	Tyr	Pro	Leu	Asn	Leu	Leu	Glu	Arg	Val	Gly	Phe
		35					40				45				
Glu	Glu	Val	Ile	Val	Val	Thr	Thr	Arg	Asp	Val	Gln	Lys	Ala	Leu	Cys
	50					55				60					
Ala	Glu	Phe	Lys	Met	Lys	Met	Lys	Pro	Asp	Ile	Val	Cys	Ile	Pro	Asp
65					70				75				80		
Asp	Ala	Asp	Met	Gly	Thr	Ala	Asp	Ser	Leu	Arg	Tyr	Ile	Tyr	Pro	Lys
				85					90				95		
Leu	Lys	Thr	Asp	Val	Leu	Val	Leu	Ser	Cys	Asp	Leu	Ile	Thr	Asp	Val
			100					105					110		
Ala	Leu	His	Glu	Val	Val	Asp	Leu	Phe	Arg	Ala	Tyr	Asp	Ala	Ser	Leu
		115					120					125			
Ala	Met	Leu	Met	Arg	Lys	Gly	Gln	Asp	Ser	Ile	Glu	Pro	Val	Pro	Gly
		130				135						140			
Gln	Lys	Gly	Lys	Lys	Lys	Ala	Val	Glu	Gln	Arg	Asp	Phe	Ile	Gly	Val
145					150					155				160	
Asp	Ser	Thr	Gly	Lys	Arg	Leu	Leu	Phe	Met	Ala	Asn	Glu	Ala	Asp	Leu
			165						170					175	
Asp	Glu	Glu	Leu	Val	Ile	Lys	Gly	Ser	Ile	Leu	Gln	Lys	His	Pro	Arg
		180						185					190		
Ile	Arg	Phe	His	Thr	Gly	Leu	Val	Asp	Ala	His	Leu	Tyr	Cys	Leu	Lys
		195					200						205		
Lys	Tyr	Ile	Val	Asp	Phe	Leu	Met	Glu	Asn	Gly	Ser	Ile	Thr	Ser	Ile
		210					215					220			
Arg	Ser	Glu	Leu	Ile	Pro	Tyr	Leu	Val	Arg	Lys	Gln	Phe	Ser	Ser	Ala
225					230					235					240
Ser	Ser	Gln	Gln	Gly	Gln	Glu	Glu	Lys	Glu	Glu	Asp	Leu	Lys	Lys	Lys
			245						250					255	
Glu	Leu	Lys	Ser	Leu	Asp	Ile	Tyr	Ser	Phe	Ile	Lys	Glu	Ala	Asn	Thr
		260						265					270		
Leu	Asn	Leu	Ala	Pro	Tyr	Asp	Ala	Cys	Trp	Asn	Ala	Cys	Arg	Gly	Asp
		275					280						285		
Arg	Trp	Glu	Asp	Leu	Ser	Arg	Ser	Gln	Val	Arg	Cys	Tyr	Val	His	Ile
		290					295					300			
Met	Lys	Glu	Gly	Leu	Cys	Ser	Arg	Val	Ser	Thr	Leu	Gly	Leu	Tyr	Met
305					310					315				320	
Glu	Ala	Asn	Arg	Gln	Val	Pro	Lys	Leu	Leu	Ser	Ala	Leu	Cys	Pro	Glu

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Glu Pro Pro Val His Ser Ser Ala Gln Ile Val Ser Lys His Leu Val
          340          345          350
Gly Val Asp Ser Leu Ile Gly Pro Glu Thr Gln Ile Gly Glu Lys Ser
          355          360          365
Ser Ile Lys Arg Ser Val Ile Gly Ser Ser Cys Leu Ile Lys Asp Arg
          370          375          380
Val Thr Ile Thr Asn Cys Leu Leu Met Asn Ser Val Thr Val Glu Glu
          385          390          395          400
Gly Ser Asn Ile Gln Gly Ser Val Ile Cys Asn Asn Ala Val Ile Glu
          405          410          415
Lys Gly Ala Asp Ile Lys Asp Cys Leu Ile Gly Ser Gly Gln Arg Ile
          420          425          430
Glu Ala Lys Ala Lys Arg Val Asn Glu Val Ile Val Gly Asn Asp Gln
          435          440          445
Leu Met Glu Ile
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<210> 4485
 <211> 513
 <212> DNA
 <213> Homo sapiens

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<400> 4485
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tactgtcct actgtctcct atctatttca tga
513

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<210> 4486
 <211> 100
 <212> PRT
 <213> Homo sapiens

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<400> 4486
Met Gly Ser Gly Ile Pro His Pro His Pro Lys Cys Val Leu Pro Gln
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Pro Phe Val Phe Arg Pro Thr Gly Leu Ile Ala Pro Cys Ala Cys Pro
20          25          30
Ser Ile Ser Leu Pro Ser Gly Ala Pro Gly Gly Gln Gly Asp Leu Leu

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      35              40              45
Pro Gln Ala Val Pro His Leu Ile Pro Lys Val Ser Ser Asn Glu Val
  50              55              60
Asp Ser Phe Lys Tyr Trp Trp Phe Trp Leu Ala Arg Val Ser Glu Gly
  65              70              75              80
Thr Glu Lys Thr Pro Lys Cys Arg Val Cys Asp Thr Ala Gln Ser Ser
      85              90              95
Pro Met Pro Asn
      100

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<210> 4487
 <211> 387
 <212> DNA
 <213> Homo sapiens

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<400> 4487
nnacgcgtaa agatactttt tcttttctgg attcccaatt ttaggtggca gtcgcaaccc
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atactattcg gacagatggc acagaaaccg ctgcgcctct tggcttgtgg agatgttgaa
120
ggaaagtgtg atattttatt caatagagtt caagcaattc agaagaaaag tggaaacttt
180
gatctgctgt tgtgtgtagg aaatttcttt ggctccaccc aagatgctga atgggaggag
240
tataagactg gcatcaagaa agctcctatt cagacatatg tgcttggtgc taataaccag
300
gaaacagtaa aatatttcca ggatgctgat ggatgtgaat tagctgaaaa cattacttat
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ctgggtcgta aaggatatctt cactgga
387

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<210> 4488
 <211> 129
 <212> PRT
 <213> Homo sapiens

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<400> 4488
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Gln Ser Gln Pro Ile Leu Phe Gly Gln Met Ala Gln Lys Pro Leu Arg
      20              25              30
Leu Leu Ala Cys Gly Asp Val Glu Gly Lys Phe Asp Ile Leu Phe Asn
      35              40              45
Arg Val Gln Ala Ile Gln Lys Lys Ser Gly Asn Phe Asp Leu Leu Leu
      50              55              60
Cys Val Gly Asn Phe Phe Gly Ser Thr Gln Asp Ala Glu Trp Glu Glu
      65              70              75              80
Tyr Lys Thr Gly Ile Lys Lys Ala Pro Ile Gln Thr Tyr Val Leu Gly
      85              90              95
Ala Asn Asn Gln Glu Thr Val Lys Tyr Phe Gln Asp Ala Asp Gly Cys
      100              105              110
Glu Leu Ala Glu Asn Ile Thr Tyr Leu Gly Arg Lys Gly Ile Phe Thr
      115              120              125
Gly

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<210> 4489
<211> 2390
<212> DNA
<213> Homo sapiens

<400> 4489
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120
gagccagggtg cctatatctt tctccagaac cccccaggtc tgcctagcat tgctgtctgc
180
tggttcgtgg gctgcctttg tggaagcaag ctgcgtattg actggcacia ctatggctac
240
tccatcatgg gtctggtgca tggccccaac catccctcgt ttctgctggc caagtggtag
300
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360
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<211> 111

<212> PRT

<213> Homo sapiens

<400> 4494

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Asp Leu Ile Ser Glu Glu Thr Asp Pro Lys Ile Ile Thr Ala Gly Asn
      35           40           45
Leu Val His Leu Ala Leu Arg Phe Lys Cys Asn Gln Asn Cys Pro Gln
      50           55           60
Gly Pro Ala Ile Lys Ala Leu Ser Leu Ser Thr Phe Trp Tyr Leu Val
      65           70           75           80
Arg Glu Leu Phe Thr Val Arg Lys Cys Gly Lys Ile Ala Leu Cys Val
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<210> 4495

<211> 3623

<212> DNA

<213> Homo sapiens

<400> 4495

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<210> 4496

<211> 560

<212> PRT

<213> Homo sapiens

<400> 4496

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Leu	Asp	Pro	Asp	Trp	Thr	Pro	Asp	Gln	Tyr	Asp	Tyr	Ser	Tyr	Glu	Asp
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Tyr	Asn	Gln	Glu	Glu	Asn	Thr	Ser	Ser	Thr	Leu	Thr	His	Ala	Glu	Asn
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Pro	Asp	Trp	Tyr	Tyr	Thr	Glu	Asp	Gln	Ala	Asp	Pro	Cys	Gln	Pro	Asn
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 Cys Ser Cys Leu Ala Pro Phe Ser Gly Asn Lys Cys Gln Lys Val Gln
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 115 120 125
 Gln Ser Pro Pro Tyr Tyr Arg Cys Val Cys Lys His Pro Tyr Thr Gly
 130 135 140
 Pro Ser Cys Ser Gln Val Val Pro Val Cys Arg Pro Asn Pro Cys Gln
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 Ala Cys Pro Asp Gln Phe Lys Gly Lys Phe Cys Glu Ile Gly Ser Asp
 180 185 190
 Asp Cys Tyr Val Gly Asp Gly Tyr Ser Tyr Arg Gly Lys Met Asn Arg
 195 200 205
 Thr Val Asn Gln His Ala Cys Leu Tyr Trp Asn Ser His Leu Leu Leu
 210 215 220
 Gln Glu Asn Tyr Asn Met Phe Met Glu Asp Ala Glu Thr His Gly Ile
 225 230 235 240
 Gly Glu His Asn Phe Cys Arg Asn Pro Asp Ala Asp Glu Lys Pro Trp
 245 250 255
 Cys Phe Ile Lys Val Thr Asn Asp Lys Val Lys Trp Glu Tyr Cys Asp
 260 265 270
 Val Ser Ala Cys Ser Ala Gln Asp Val Ala Tyr Pro Glu Glu Ser Pro
 275 280 285
 Thr Glu Pro Ser Thr Lys Leu Pro Gly Phe Asp Ser Cys Gly Lys Thr
 290 295 300
 Glu Ile Ala Glu Arg Lys Ile Lys Arg Ile Tyr Gly Gly Phe Lys Ser
 305 310 315 320
 Thr Ala Gly Lys His Pro Trp Gln Ala Ser Leu Gln Ser Ser Leu Pro
 325 330 335
 Leu Thr Ile Ser Met Pro Gln Gly His Phe Cys Gly Gly Ala Leu Ile
 340 345 350
 His Pro Cys Trp Val Leu Thr Ala Ala His Cys Thr Asp Ile Lys Thr
 355 360 365
 Arg His Leu Lys Val Val Leu Gly Asp Gln Asp Leu Lys Lys Glu Glu
 370 375 380
 Phe His Glu Gln Ser Phe Arg Val Glu Lys Ile Phe Lys Tyr Ser His
 385 390 395 400
 Tyr Asn Glu Arg Asp Glu Ile Pro His Asn Asp Ile Ala Leu Leu Lys
 405 410 415
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 420 425 430
 Thr Val Cys Leu Pro Asp Gly Ser Phe Pro Ser Gly Ser Glu Cys His
 435 440 445
 Ile Ser Gly Trp Gly Val Thr Glu Thr Gly Lys Gly Ser Arg Gln Leu
 450 455 460
 Leu Asp Ala Lys Val Lys Leu Ile Ala Asn Thr Leu Cys Asn Ser Arg
 465 470 475 480
 Gln Leu Tyr Asp His Met Ile Asp Asp Ser Met Ile Cys Ala Gly Asn
 485 490 495
 Leu Gln Lys Pro Gly Gln Asp Thr Cys Gln Gly Asp Ser Gly Gly Pro
 500 505 510
 Leu Thr Cys Glu Lys Asp Gly Thr Tyr Tyr Val Tyr Gly Ile Val Ser

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Trp	Gly	Leu	Glu	Cys	Gly	Lys	Arg	Pro	Gly	Val	Tyr	Thr	Gln	Val	Thr
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<210> 4497
 <211> 840
 <212> DNA
 <213> Homo sapiens

<400> 4497
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 180
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 720
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<210> 4498
 <211> 280
 <212> PRT
 <213> Homo sapiens

<400> 4498
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 20 25 30
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 35 40 45
 Pro Gly Asn Pro Val Gln Gly Gln Cys Gly Glu Glu Glu Asp Ser Leu

50	55	60
Asp Leu Ser Ser Thr Phe Val Ser Leu Ala Leu Arg Lys Val Gly Asp		
65	70	75
Trp Pro Leu Ser Ala Arg Arg Glu Lys Gly Leu Asn Gln Glu Pro Gln		80
	85	90
Gly Arg Gly Leu Ala Leu Gln Lys Met Gly Gln Glu Glu Ser Pro		95
	100	105
Pro Arg Glu Glu Arg Pro Gln Gln Ser Pro Lys Ala Ser Pro Gly Leu		110
	115	120
Leu Ala Ala Ala Leu Gln Gln Ser Gln Glu Leu Ala Lys Leu Gly Thr		125
	130	135
Ser Phe Ala Gln Asn Gly Phe Tyr His Glu Ala Val Val Leu Phe Thr		140
145	150	155
Gln Ala Leu Lys Leu Asn Pro Gln Asp His Arg Leu Phe Gly Asn Arg		160
	165	170
Ser Phe Cys His Glu Arg Leu Gly Gln Pro Ala Trp Ala Leu Ala Asp		175
	180	185
Ala Gln Val Ala Leu Thr Leu Arg Pro Gly Trp Pro Arg Gly Leu Phe		190
	195	200
Arg Leu Gly Lys Ala Leu Met Gly Leu Gln Arg Phe Arg Glu Ala Ala		205
	210	215
Ala Val Phe Gln Glu Thr Leu Arg Gly Gly Ser Gln Pro Asp Ala Ala		220
225	230	235
Arg Glu Leu Arg Ser Cys Leu Leu His Leu Thr Leu Gln Gly Gln Arg		240
	245	250
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	260	265
Pro His Ala Glu Leu Ala Pro Ser		270
	275	280

<210> 4499
 <211> 562
 <212> DNA
 <213> Homo sapiens

<400> 4499
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 180
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 420
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<210> 4500
<211> 91
<212> PRT
<213> Homo sapiens

<400> 4500
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His Gly Leu Ser Pro Leu Asn Val Ile Ala Glu Asp Gly Thr Met Thr
35 40 45
Ser Leu Cys Gly Asp Trp Leu Gln Gly Leu His Arg Phe Val Ala Arg
50 55 60
Glu Lys Ile Met Ser Val Leu Ser Glu Arg Gly Leu Phe Arg Gly Leu
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Gln Asn His Pro Met Val Leu Pro Ile Cys Arg
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<210> 4501
<211> 1866
<212> DNA
<213> Homo sapiens

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<210> 4502

<211> 267

<212> PRT

<213> Homo sapiens

<400> 4502

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			20					25					30		
Phe	Asp	Glu	Thr	Ile	Val	Asp	Glu	Asn	Ser	Asp	Asp	Ser	Ile	Val	Arg
		35					40					45			
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Glu	Gln	Gly	Val	Arg	Pro	Arg	Asp	Leu	Ser	Ala	Ile	Tyr	Glu	Ala	Ile
				85					90					95	
Pro	Leu	Ser	Pro	Gly	Met	Ser	Asp	Leu	Leu	Gln	Phe	Val	Ala	Lys	Gln
			100					105						110	
Gly	Ala	Cys	Phe	Glu	Val	Ile	Leu	Ile	Ser	Asp	Ala	Asn	Thr	Phe	Gly
		115					120						125		
Val	Glu	Ser	Ser	Leu	Arg	Ala	Ala	Gly	His	His	Ser	Leu	Phe	Arg	Arg
	130					135					140				
Ile	Leu	Ser	Asn	Pro	Ser	Gly	Pro	Asp	Ala	Arg	Gly	Leu	Leu	Ala	Leu
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Arg	Pro	Phe	His	Thr	His	Ser	Cys	Ala	Arg	Cys	Pro	Ala	Asn	Met	Cys
			165					170						175	
Lys	His	Lys	Val	Leu	Ser	Asp	Tyr	Leu	Arg	Glu	Arg	Ala	His	Asp	Gly
		180					185						190		
Val	His	Phe	Glu	Arg	Leu	Phe	Tyr	Val	Gly	Asp	Gly	Ala	Asn	Asp	Phe
	195						200					205			
Cys	Pro	Met	Gly	Leu	Leu	Ala	Gly	Gly	Asp	Val	Ala	Phe	Pro	Arg	Arg
	210					215					220				
Gly	Tyr	Pro	Met	His	Arg	Leu	Ile	Gln	Glu	Ala	Gln	Lys	Ala	Glu	Pro
225				230					235					240	
Ser	Ser	Phe	Arg	Ala	Ser	Val	Val	Pro	Trp	Glu	Thr	Ala	Ala	Asp	Val
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Arg	Leu	His	Leu	Gln	Gln	Val	Leu	Lys	Ser	Cys					
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<210> 4503
 <211> 1983
 <212> DNA
 <213> Homo sapiens

<400> 4503
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 agcctcggtt gcccgcccg ggacccgagc cgaaaagtta tcgtcagaat gtcggggcaaa
 180
 gaccgaattg aaatctttcc ctgcgaatg gcacagacca tcatgaaggc tcgattaaag
 240
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 360
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 420
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 480
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His Leu Arg Glu Ser Gly Pro Leu Ser Val Arg His Val Ala Leu Leu
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Ala Leu Glu Thr Ala Ser His Pro Ser Gly Pro His Thr Asn Gln Ala
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<212> PRT

<213> Homo sapiens

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Asn Val Asp Pro Glu Pro Asp Ser Thr Gln Pro Leu Ser Lys Pro Ala		
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Gln Lys Ser Glu Glu Ala Asn Glu Pro Lys Ala Glu Lys Pro Asp Ala		

1365 1370 1375
 Thr Ala Asp Ala Glu Pro Asp Ala Asn Gln Lys Ala Glu Ala Ala Pro
 1380 1385 1390
 Glu Ser Gln Pro Pro Ala Ser Glu Asp Leu Glu Val Asp Pro Pro Val
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 Ala Ala Lys Asp Lys Lys Pro Asn Lys Ser Lys Arg Ser Lys Thr Pro
 1410 1415 1420
 Val Gln Ala Ala Ala Val Ser Ile Val Glu Lys Pro Val Thr Arg Lys
 1425 1430 1435 1440
 Ser Glu Arg Ile Asp Arg Glu Lys Leu Lys Arg Ser Asn Ser Pro Arg
 1445 1450 1455
 Gly Glu Ala Gln Lys Leu Leu Glu Leu Lys Met Glu Ala Glu Lys Ile
 1460 1465 1470
 Thr Arg Thr Ala Ser Lys Asn Ser Ala Ala Asp Leu Glu His Pro Glu
 1475 1480 1485
 Pro Ser Leu Pro Leu Ser Arg Thr Arg Arg Arg Asn Val Arg Ser Val
 1490 1495 1500
 Tyr Ala Thr Met Gly Asp His Glu Asn Arg Ser Pro Val Lys Glu Pro
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 Val Glu Gln Pro Arg Val Thr Arg Lys Arg Leu Glu Arg Glu Leu Gln
 1525 1530 1535
 Glu Ala Ala Ala Val Pro Thr Thr Pro Arg Arg Gly Arg Pro Pro Lys
 1540 1545 1550
 Thr Arg Arg Arg Ala Asp Glu Glu Glu Glu Asn Glu Ala Lys Glu Pro
 1555 1560 1565
 Ala Glu Thr Leu Lys Pro Pro Glu Gly Trp Arg Ser Pro Arg Ser Gln
 1570 1575 1580
 Lys Thr Ala Ala Gly Gly Gly Pro Gln Gly Lys Lys Gly Lys Asn Glu
 1585 1590 1595 1600
 Pro Lys Val Asp Ala Thr Arg Pro Glu Ala Thr Thr Glu Val Gly Pro
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 Gln Ile Gly Val Lys Glu Ser Ser Met Glu Pro Lys Ala Ala Glu Glu
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 Glu Ala Gly Ser Glu Gln Lys Arg Asp Arg Lys Asp Ala Gly Thr Asp
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 Lys Asn Pro Pro Glu Thr Ala Pro Val Glu Val Val Glu Lys Lys Pro
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 Ala Pro Glu Lys Asn Ser Lys Ser Lys Arg Gly Arg Ser Arg Asn Ser
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 Arg Leu Ala Val Asp Lys Ser Ala Ser Leu Lys Asn Val Asp Ala Ala
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 Val Ser Pro Arg Gly Ala Ala Ala Gln Ala Gly Glu Arg Glu Ser Gly
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 Val Val Ala Val Ser Pro Glu Lys Ser Glu Ser Pro Gln Lys Glu Asp
 1715 1720 1725
 Gly Leu Ser Ser Gln Leu Lys Ser Asp Pro Val Asp Pro Asp Lys Glu
 1730 1735 1740
 Pro Glu Lys Glu Asp Val Ser Ala Ser Gly Pro Ser Pro Glu Ala Thr
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 Gln Leu Ala Lys Gln Met Glu Leu Glu Gln Ala Val Glu His Ile Ala
 1765 1770 1775
 Lys Leu Ala Glu Ala Ser Ala Ser Ala Ala Tyr Lys Ala Asp Ala Pro
 1780 1785 1790
 Glu Gly Leu Ala Pro Glu Asp Arg Asp Lys Pro Ala His Gln Ala Ser

1795	1800	1805
Glu Thr Glu Leu Ala Ala Ala Ile Gly Ser Ile Ile Asn Asp Ile Ser		
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Gly Glu Pro Glu Asn Phe Pro Ala Pro Pro Pro Tyr Pro Gly Glu Ser		
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Gln Thr Asp Leu Gln Pro Pro Ala Gly Ala Gln Ala Leu Gln Pro Ser		1840
1845	1850	1855
Glu Glu Gly Met Glu Thr Asp Glu Ala Val Ser Gly Ile Leu Glu Thr		
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Glu Ala Ala Thr Glu Ser Ser Arg Pro Pro Val Asn Ala Pro Asp Pro		
1875	1880	1885
Ser Ala Gly Pro Thr Asp Thr Lys Glu Ala Arg Gly Asn Ser Ser Glu		
1890	1895	1900
Thr Ser His Ser Val Pro Glu Ala Lys Gly Ser Lys Glu Val Glu Val		
1905	1910	1915
Thr Leu Val Arg Lys Asp Lys Gly Arg Gln Lys Thr Thr Arg Ser Arg		1920
1925	1930	1935
Arg Lys Arg Asn Thr Asn Lys Lys Val Val Ala Pro Val Glu Ser His		
1940	1945	1950
Val Pro Glu Ser Asn Gln Ala Gln Gly Glu Ser Pro Ala Ala Asn Glu		
1955	1960	1965
Gly Thr Thr Val Gln His Pro Glu Ala Pro Gln Glu Glu Lys Gln Ser		
1970	1975	1980
Glu Lys Pro His Ser Thr Pro Pro Gln Ser Cys Thr Ser Asp Leu Ser		
1985	1990	1995
Lys Ile Pro Ser Thr Glu Asn Ser Ser Gln Glu Ile Ser Val Glu Glu		
2005	2010	2015
Arg Thr Pro Thr Lys Ala Ser Val Pro Pro Asp Leu Pro Pro Pro Pro		
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Gln Pro Ala Pro Val Asp Glu Glu Pro Gln Ala Arg Phe Arg Val His		
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Ser Ile Ile Glu Ser Asp Pro Val Thr Pro Pro Ser Asp Pro Ser Ile		
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Pro Ile Pro Thr Leu Pro Ser Val Thr Ala Ala Lys Leu Ser Pro Pro		
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Glu Trp Ile Thr Arg Gln Glu Glu Pro Arg Ala Gln Ser Thr Pro Ser		
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Ser Thr Leu Arg Lys Ile Leu Met Asp Pro Lys Tyr Val Ser Ala Thr		
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Ser Val Thr Ser Thr Ser Val Thr Thr Ala Ile Ala Glu Pro Val Ser		
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Ala Ala Pro Cys Leu His Glu Ala Pro Pro Pro Pro Val Asp Ser Lys		2160
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Lys Pro Leu Glu Glu Lys Thr Ala Pro Pro Val Thr Asn Asn Ser Glu		
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Ile Gln Ala Ser Glu Val Leu Val Ala Ala Asp Lys Glu Lys Val Ala		
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Pro Val Ile Ala Pro Lys Ile Thr Ser Val Ile Ser Arg Met Pro Val		
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Ser Ile Asp Leu Glu Asn Ser Gln Lys Ile Thr Leu Ala Lys Pro Ala		

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 2275 2280 2285
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 2385 2390 2395 2400
 Ala Gly Leu Arg Val Asn Thr Ser Glu Gly Val Val Leu Leu Ser Tyr
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 Gln Ile Pro Pro Ala Ser Ala Met Asp Ile Glu Phe Gln Gln Ser Val
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 2450 2455 2460
 Ser Lys Gly Pro Gln Ala Pro Ala Gly Tyr Ala Asn Val Ala Thr His
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 Thr Glu Val Asn His Val Pro Ser Gly Pro Ser Ile Pro Ala Asp Arg
 2595 2600 2605
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 Ser Thr Ala Ser Thr Ala Leu Ser Thr Asn Ala Thr Val Met Leu Ala
 2645 2650 2655
 Ala Gly Ile Pro Val Pro Gln Phe Ile Ser Ser Ile His Pro Glu Gln

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His Leu Ser Gln Gly Glu Val Arg Met Asn Thr Pro Thr Leu Pro Ser		
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2725	2730	2735
Pro Gln Pro Ala Pro Ala Gly Val Pro Ala Leu Ala Ser Gln His Pro		
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Pro Glu Glu Glu Val His Tyr His Leu Pro Val Ala Arg Ala Thr Ala		
2755	2760	2765
Pro Val Gln Ser Glu Val Leu Val Met Gln Ser Glu Tyr Arg Leu His		
2770	2775	2780
Pro Tyr Thr Val Pro Arg Asp Val Arg Ile Met Val His Pro His Val		
2785	2790	2795
Thr Ala Val Ser Glu Gln Pro Arg Ala Ala Asp Gly Val Val Lys Val		2800
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Thr Pro Asp Ala Lys Ala Ala Pro Thr Pro Thr Pro Ala Pro Val Pro		
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Val Pro Val Pro Leu Pro Ala Pro Ala Pro Ala Pro His Gly Glu Ala		
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Arg Ile Leu Thr Val Thr Pro Ser Asn Gln Leu Gln Gly Leu Pro Leu		
2865	2870	2875
Thr Pro Pro Val Val Val Thr His Gly Val Gln Ile Val His Ser Ser		2880
2885	2890	2895
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Gly Glu Pro Leu Gln Pro Pro Gln Pro Val Gln Ser Thr Gln Pro Ala		
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Gln Pro Ala Pro Pro Cys Pro Pro Ser Gln Leu Gly Gln Pro Gly Gln		2960
2965	2970	2975
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Gln Thr Gly Val Glu Gln Pro Arg Leu Pro Ala Gly Pro Ala Asn Arg		
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Pro Pro Glu Pro His Thr Gln Val Gln Arg Ala Gln Ala Glu Thr Gly		
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Pro Thr Ser Phe Pro Ser Pro Val Ser Val Ser Met Lys Pro Asp Leu		
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Pro Val Ser Leu Pro Thr Gln Thr Ala Pro Lys Gln Pro Leu Phe Val		3040
3045	3050	3055
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Thr Glu Phe Gln Pro Ala Pro Lys Gln Asp Ser Ser Pro His Leu Thr		
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Ser Gln Arg Pro Val Asp Met Val Gln Leu Leu Lys Lys Tyr Pro Ile		

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 Leu Ser Glu Gly Gly Pro Pro Leu Arg Ile Ala Gln Arg Met Arg Leu
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 Glu Ala Thr Gln Leu Glu Gly Val Ala Arg Arg Met Thr Leu Ala Ser
 3155 3160 3165
 Ala Ser Val Glu Thr Asp Tyr Cys Leu Leu Leu Ala Leu Pro Cys Gly
 3170 3175 3180
 Arg Asp Gln Glu Asp Val Val Ser Gln Thr Glu Ser Leu Lys Ala Ala
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 Phe Ile Thr Tyr Leu Gln Ala Lys Gln Ala Ala Gly Ile Ile Asn Val
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 Pro Asn Pro Gly Ser Asn Gln Pro Ala Tyr Val Leu Gln Ile Phe Pro
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 Pro Cys Glu Phe Ser Glu Ser His Leu Ser Arg Leu Ala Pro Asp Leu
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 Ser Val
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<210> 4511

<211> 1375

<212> DNA

<213> Homo sapiens

<400> 4511

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 180
 gaaggtccca ttcagtaccg agatgaagaa gatgaagatg aaagctatca gattgcactc
 240
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 300
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<210> 4512

<211> 244

<212> PRT

<213> Homo sapiens

<400> 4512

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			20					25					30		
Glu	Glu	Met	Thr	Pro	Thr	Ser	Val	Ile	Pro	Lys	Leu	Pro	Gln	Cys	Leu
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Arg	Glu	Glu	Glu	Glu	Lys	Glu	Ser	Asp	Ser	Asp	Ser	Glu	Gly	Pro	Ile
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Gln	Tyr	Arg	Asp	Glu	Glu	Asp	Glu	Asp	Glu	Ser	Tyr	Gln	Ser	Ala	Leu
65				70					75					80	
Ala	Asn	Lys	Val	Lys	Arg	Lys	Asp	Thr	Leu	Ala	Met	Lys	Leu	Asn	His
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Arg	Pro	Ser	Glu	Pro	Glu	Leu	Asn	Leu	Asn	Ser	Trp	Pro	Cys	Lys	Ser
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Lys	Glu	Glu	Trp	Asn	Glu	Ile	Arg	His	Gln	Ile	Gly	Asn	Thr	Leu	Ile
		115				120					125				
Arg	Arg	Leu	Ser	Gln	Arg	Pro	Thr	Pro	Glu	Glu	Leu	Glu	Gln	Arg	Asn
		130				135					140				
Ile	Leu	Gln	Pro	Lys	Asn	Glu	Ala	Asp	Arg	Gln	Ala	Glu	Lys	Arg	Glu
145				150					155					160	
Ile	Lys	Arg	Arg	Leu	Thr	Arg	Lys	Leu	Ser	Gln	Arg	Pro	Thr	Val	Ala
			165					170					175		
Glu	Leu	Leu	Ala	Arg	Lys	Ile	Leu	Arg	Phe	Asn	Glu	Tyr	Val	Glu	Val
		180					185						190		
Thr	Asp	Ala	Gln	Asp	Tyr	Asp	Arg	Arg	Ala	Asp	Lys	Pro	Trp	Thr	Lys

195 200 205
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 210 215 220
 Lys Ser Ser Glu Met Glu Val His Glu Glu Ser Lys His Phe Thr Arg
 225 230 235 240
 Tyr His Arg Pro

<210> 4513
 <211> 545
 <212> DNA
 <213> Homo sapiens

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<210> 4514
 <211> 122
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 <213> Homo sapiens

<400> 4514
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 Ser Met Ser His Leu Leu Lys Gly Asn Ser Glu Glu Lys Ser Leu Met
 35 40 45
 Ile Met Lys Met Ile Ser Ala Thr Glu Gly Pro Val Lys Ala Arg Glu
 50 55 60
 Val Gln Lys Phe Thr Glu Asp Leu Val Gly Ser Val Val His Val Leu
 65 70 75 80
 Ser His Arg Gln Glu Leu Arg Gly Trp Thr Gly Lys Glu Ala Pro Gly
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<210> 4515
 <211> 3207
 <212> DNA
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<210> 4516

<211> 901

<212> PRT

<213> Homo sapiens

<400> 4516

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Ser	Leu	Leu	Arg	Arg	Glu	Ala	Arg	Ala	Pro	Leu	Gly	Ala	Pro	Asn	Pro
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Asn Arg Ser Thr Val	Phe Ser Tyr Ser	Ser Ala Leu Asn Leu Cys Tyr
610	615	620
Ala Ile Leu Phe Arg	Arg Thr Val Ser	Ser Lys Thr Pro Lys Cys Pro
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Leu Ser Ser Tyr Thr	Ala Asn Leu Ala	Ala Val Met Val Gly Asp Lys
660	665	670
Thr Phe Glu Glu Leu	Ser Gly Ile His	Asp Pro Lys Leu His His Pro
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Ala Gln Gly Phe Arg	Phe Gly Thr Val	Trp Glu Ser Ser Ala Glu Ala
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<211> 2275
<212> DNA
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<211> 650

<212> PRT

<213> Homo sapiens

<400> 4518

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 Pro Gly Ala Asp Gly Gly Ser Leu Glu Ala Val Arg Leu Gly Pro Ser
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 Ser Gly Leu Leu Val Asp Trp Leu Glu Met Leu Asp Pro Glu Val Val
 65 70 75 80
 Ser Ser Cys Pro Asp Leu Gln Leu Arg Leu Leu Phe Ser Arg Arg Lys
 85 90 95
 Gly Lys Gly Gln Ala Gln Val Pro Ser Phe Arg Pro Tyr Leu Leu Thr
 100 105 110
 Leu Phe Thr His Gln Ser Ser Trp Pro Thr Leu His Gln Cys Ile Arg
 115 120 125
 Val Leu Leu Gly Lys Ser Arg Glu Gln Arg Phe Asp Pro Ser Ala Ser
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 Leu Asp Phe Leu Trp Ala Cys Ile His Val Pro Arg Ile Trp Gln Gly
 145 150 155 160
 Arg Asp Gln Arg Thr Pro Gln Lys Arg Arg Glu Glu Leu Val Leu Arg
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 Val Gln Gly Pro Glu Leu Ile Ser Leu Val Glu Leu Ile Leu Ala Glu
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 Ala Glu Thr Arg Ser Gln Asp Gly Asp Thr Ala Ala Cys Ser Leu Ile
 195 200 205
 Gln Ala Arg Leu Pro Leu Leu Ser Cys Cys Cys Gly Asp Asp Glu
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 Ser Val Arg Lys Val Thr Glu His Leu Ser Gly Cys Ile Gln Gln Trp
 225 230 235 240
 Gly Asp Ser Val Leu Gly Arg Arg Cys Arg Asp Leu Leu Leu Gln Leu
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 Tyr Leu Gln Arg Pro Glu Leu Arg Val Pro Val Pro Glu Val Leu Leu
 260 265 270
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 Leu Glu Asn Arg Gly Ala Asp Ala Ser Met Ala Cys Arg Lys Leu Ala
 305 310 315 320
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 Asn His Leu Ser Cys Phe Leu His Val Leu Gly Leu Leu Glu Leu Leu
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 370 375 380
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 420 425 430
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 Lys Ser Leu Leu Ala Gly Leu Ser Leu Pro Ser Arg Asp Asp Arg Thr
 450 455 460
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 465 470 475 480
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 Met Ala Pro Tyr Met Lys Arg Leu Ser Arg Gly Gln Thr Val Glu Gly
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<212> DNA

<213> Homo sapiens

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<211> 617

<212> PRT

<213> Homo sapiens

<400> 4520

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Cys	Gln	Ser	Ser	Pro	Cys	Glu	Ala	Glu	Glu	Leu	Arg	Tyr	Ser	Leu	His
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<211> 1071

<212> DNA

<213> Homo sapiens

<400> 4521

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<211> 189

<212> PRT

<213> Homo sapiens

<400> 4522

Met	Leu	Ala	Leu	Arg	Thr	Val	Lys	Gly	Phe	Lys	Arg	Lys	Ser	Thr	Pro
1				5					10					15	
Arg	Glu	Gly	Ser	Tyr	Met	Ser	Ser	Pro	Pro	Pro	Pro	Pro	Pro	Pro	Gly
			20					25					30		
His	Thr	Glu	Thr	Ala	Ser	Ser	Phe	Gln	Pro	Ser	Pro	Phe	Ser	Ala	Asp
		35					40					45			
Phe	Glu	Leu	Gln	Ile	Ser	Leu	Leu	Tyr	Leu	Glu	Ser	Pro	Ile	Ser	Leu
	50					55				60					
Gln	Glu	Phe	Ala	Leu	Ser	Phe	Ile	Ile	Ile	Leu	Val	Tyr	Val	Leu	Asp
65					70					75				80	
Trp	Ala	Ala	Ile	Thr	Arg	Cys	His	Arg	Leu	Ser	Gly	Leu	Asn	Asn	Lys
				85				90					95		
His	Ser	Tyr	Pro	Thr	Val	Thr	Glu	Ala	Glu	Lys	Pro	Gly	Val	Lys	Val
			100					105				110			
Pro	Ala	Trp	Ser	Asp	Ser	Val	Leu	Glu	Ala	Gly	Lys	Ser	Lys	Met	Glu
			115				120					125			
Ala	Leu	Val	Gly	Leu	Val	Ser	Gly	Arg	Ala	Ser	Leu	Cys	Phe	Gln	Asp

130		135		140
Gly Ala Leu Ser Leu His Leu Pro Glu Gly Arg Asn Ala Val Ser Leu				
145		150		155
Gln His Arg Arg Asn Thr Ser Glu Lys Lys Ser Ser Arg Lys Val Glu				
	165		170	
Asn Lys Glu Met Glu Tyr Ile Tyr Glu Asn Tyr Tyr Ile				
	180		185	

<210> 4523

<211> 1022

<212> DNA

<213> Homo sapiens

<400> 4523

gcactgtata ttcttgctg cacacgggac tctcagctc gcctccttgg aaaaaccaag
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gacactccca ggctgagtct cntcttggtg attctgggcg tcattctcat gaatggcaac
120
cgtgccagcg aggtgtcct ctgggaggca ctacgaaga tgggactgcg ccttggggtg
180
aggcaccat tctcggcga tctgaggaag ctcatcacag atgactttgt gaagcagaag
240
tacctggaat acaagaagat cccaacagc aaccacctg agtatgaatt cctctggggc
300
ctgcgagccc gccatgagac cagcaagatg aggttcctga gattcatcgc ccagaatcag
360
aaccgagacc cccgggaatg gaaggctcat ttcttgaggg ctgtggatga tgctttcaag
420
acaatggatg tggatatggc cgaggaacat gccagggccc agatgagggc ccagatgaat
480
atcgggggatg aagcgtgat tggacggtg agctgggatg acatacaagt cgagctcctg
540
acctgggatg aggacggaga ttttggcgat gcctgggcca ggateccctt tgctttctg
600
gccagatacc atcagtacat tctgaatagc aaccgtgcca acaggagggc cacgtggaga
660
gctggcgta gcagtggcac caatggaggg gccagcacca gcgtcctaga tggccccagc
720
accagctcca ccatccggac cagaaatgct gccagagctg gcgccagctt cttctcctg
780
atccagtagg agtttcggca ccgttgacga actgcagcga tcttactggc caagccagag
840
cgctcctct cagattcctt ctgcacacag caccctaggg ggcttcttc tgtcagtcg
900
aggtggcatg caagatgaag ctctctttgc tcttctgct ttcattttgt gcttttctt
960
gtgttttcat gttttgggta tcagtgttac attaaagttg caaaattaaa aaaaaaaaaa
1020
aa
1022

<210> 4524

<211> 262

<212> PRT

<213> Homo sapiens

<400> 4524

Ala Leu Tyr Ile Leu Val Cys Thr Arg Asp Ser Ser Ala Arg Leu Leu
 1 5 10 15
 Gly Lys Thr Lys Asp Thr Pro Arg Leu Ser Leu Xaa Leu Val Ile Leu
 20 25 30
 Gly Val Ile Phe Met Asn Gly Asn Arg Ala Ser Glu Ala Val Leu Trp
 35 40 45
 Glu Ala Leu Arg Lys Met Gly Leu Arg Pro Gly Val Arg His Pro Phe
 50 55 60
 Leu Gly Asp Leu Arg Lys Leu Ile Thr Asp Asp Phe Val Lys Gln Lys
 65 70 75 80
 Tyr Leu Glu Tyr Lys Lys Ile Pro Asn Ser Asn Pro Pro Glu Tyr Glu
 85 90 95
 Phe Leu Trp Gly Leu Arg Ala Arg His Glu Thr Ser Lys Met Arg Val
 100 105 110
 Leu Arg Phe Ile Ala Gln Asn Gln Asn Arg Asp Pro Arg Glu Trp Lys
 115 120 125
 Ala His Phe Leu Glu Ala Val Asp Asp Ala Phe Lys Thr Met Asp Val
 130 135 140
 Asp Met Ala Glu Glu His Ala Arg Ala Gln Met Arg Ala Gln Met Asn
 145 150 155 160
 Ile Gly Asp Glu Ala Leu Ile Gly Arg Trp Ser Trp Asp Asp Ile Gln
 165 170 175
 Val Glu Leu Leu Thr Trp Asp Glu Asp Gly Asp Phe Gly Asp Ala Trp
 180 185 190
 Ala Arg Ile Pro Phe Ala Phe Trp Ala Arg Tyr His Gln Tyr Ile Leu
 195 200 205
 Asn Ser Asn Arg Ala Asn Arg Arg Ala Thr Trp Arg Ala Gly Val Ser
 210 215 220
 Ser Gly Thr Asn Gly Gly Ala Ser Thr Ser Val Leu Asp Gly Pro Ser
 225 230 235 240
 Thr Ser Ser Thr Ile Arg Thr Arg Asn Ala Arg Ala Gly Ala Ser
 245 250 255
 Phe Phe Ser Trp Ile Gln
 260

<210> 4525

<211> 1731

<212> DNA

<213> Homo sapiens

<400> 4525

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 gtgagtacag aggtggtcag agcccaagaa gaatgggaag ctgtggacac catccagcca
 120
 gagacagga gccaaactag ctacagagcag cctgggcagc taatctcctt cagtgaggcc
 180
 ctgcagcact tccagactgt ggacctttcc cccttcaaga aaagaatcca gccaaactatt
 240
 cgaaggactg ggctcgccgc cctccgacac tacctcttcg ggctccaaa gctccaccag
 300

cgcccttcggg aagaaagga cttggctctg accattgctc agtgtggcct ggatagccaa
360
gaccagtg c atggccgagt cctccagacc atctataaga agctgaccgg ctccaagttt
420
gactgtgccc ttcattgaaa ccactgggag gacctgggct ttcagggagc gaatccagcc
480
acagacctga gaggcgcagg ctctcttgcc ctctgcac c tgctctacct agtgatggac
540
tcaaagacct tgccgatggc gcaggagatt ttccgctgt ctctcacca catccagcaa
600
ttccctttct gtttgatgtc cgtgaacac acccacattg ccatccaggc cttgagagag
660
gagtgtctct ccagagagtg taatcggcag cagaaggtca tccccgtggg gaacagcttc
720
tatgccgcca cattcctcca cctcgcacat gtctggagga cacagcggaa gaccatctca
780
gactcgggct ttgtcctcaa aggtgtgctc tttcttctgg ggaggcctag gctgaatgca
840
cagtgtccca ggtccagaga gcccaggtg gttgctagac tggttttggc tgcagttctt
900
ccccatccac acttttctca attccagctt accaaaatct ccatcaccca cccctggag
960
tctgctagtt ctctttctc tgccctgact gtgcctctt tctggtctta tacttatgac
1020
aagcatatat tctgatcaaa aattgggagc cagggtccaa tagttggact attcaaagtt
1080
gcaattgtgc agacaaggta gagtgtgtgg tccctgtggc tgtagctggc tccctagcct
1140
acctctctgg tgatctctcc atctgaggct ccttcacttt ctctccatgg gataggggtt
1200
gggggtactc cctagagctg ctaggcttga ggccttgact gttgtgtcac ccagagcccc
1260
ctcaagcctt ctgtcccca attctctctg ttgcagagtt ggaagtattg gccagaaga
1320
gccacggcg ggctgtcaa gaccctggag ctgtacttgg ccagggtgtc aaaggacag
1380
gctccttgt tgggagcaca gaagtgtat gggccagaag cccctcctt caaggatctc
1440
accttcacag gtgagagtga cctgcagtct cactcatccg aaggcgtatg gctgatctga
1500
cctccgagat gaatggaggc ttaaaggctg agctgcaggg gctttcaggg ggtcagtgga
1560
gccatgtcag gagcctggcc aggcgcacc ccttgctgtc tcagcagatg ggatatagga
1620
agctcctggg cttagctgtg ggaagccaag taccctcacc ggcattgggac atgaggggca
1680
gctagacttc accccttcc cgcagacctg cctccagagc aaggagaatt c
1731

<210> 4526

<211> 344

<212> PRT

<213> Homo sapiens

<400> 4526

Xaa Asn His Gly Ile Leu Gln Ala Leu Thr Thr Glu Ala Tyr Glu Trp
 1 5 10 15
 Glu Pro Arg Val Ser Thr Glu Val Val Arg Ala Gln Glu Glu Trp
 20 25 30
 Glu Ala Val Asp Thr Ile Gln Pro Glu Thr Gly Ser Gln Ala Ser Ser
 35 40 45
 Glu Gln Pro Gly Gln Leu Ile Ser Phe Ser Glu Ala Leu Gln His Phe
 50 55 60
 Gln Thr Val Asp Leu Ser Pro Phe Lys Lys Arg Ile Gln Pro Thr Ile
 65 70 75 80
 Arg Arg Thr Gly Leu Ala Ala Leu Arg His Tyr Leu Phe Gly Pro Pro
 85 90 95
 Lys Leu His Gln Arg Leu Arg Glu Glu Arg Asp Leu Val Leu Thr Ile
 100 105 110
 Ala Gln Cys Gly Leu Asp Ser Gln Asp Pro Val His Gly Arg Val Leu
 115 120 125
 Gln Thr Ile Tyr Lys Lys Leu Thr Gly Ser Lys Phe Asp Cys Ala Leu
 130 135 140
 His Gly Asn His Trp Glu Asp Leu Gly Phe Gln Gly Ala Asn Pro Ala
 145 150 155 160
 Thr Asp Leu Arg Gly Ala Gly Phe Leu Ala Leu Leu His Leu Leu Tyr
 165 170 175
 Leu Val Met Asp Ser Lys Thr Leu Pro Met Ala Gln Glu Ile Phe Arg
 180 185 190
 Leu Ser Arg His His Ile Gln Gln Phe Pro Phe Cys Leu Met Ser Val
 195 200 205
 Asn Ile Thr His Ile Ala Ile Gln Ala Leu Arg Glu Glu Cys Leu Ser
 210 215 220
 Arg Glu Cys Asn Arg Gln Gln Lys Val Ile Pro Val Val Asn Ser Phe
 225 230 235 240
 Tyr Ala Ala Thr Phe Leu His Leu Ala His Val Trp Arg Thr Gln Arg
 245 250 255
 Lys Thr Ile Ser Asp Ser Gly Phe Val Leu Lys Gly Val Leu Phe Leu
 260 265 270
 Leu Gly Arg Pro Arg Leu Asn Ala Gln Cys Pro Arg Ser Arg Glu Pro
 275 280 285
 Lys Val Val Ala Arg Leu Val Leu Ala Ala Val Leu Pro His Pro His
 290 295 300
 Phe Leu Lys Phe Gln Leu Thr Lys Ile Ser Ile Thr His Pro Leu Glu
 305 310 315 320
 Ser Ala Ser Ser Pro Phe Ser Ala Leu Thr Val Ala Leu Phe Trp Ser
 325 330 335
 Tyr Thr Tyr Asp Lys His Ile Phe
 340

<210> 4527

<211> 885

<212> DNA

<213> Homo sapiens

<400> 4527

nntttttttt tttttttttt tttttttttt tttttttttt tttttttttg cagagacatg
 60

gctgcattta ttgttcccag cccggcgaga aggtgttccc agaaagggtc cttgggtcac
 120
 ctgcccaccc agccttggtt ctgggctgcc atgtcccccac gggggcagga gagaggcaca
 180
 agtcacagtc aggcaaggga gcctcagcgt cctgggcggt ggctgttggg gtccctccag
 240
 tcttcacctg ggacctcgg ccaggctggg acagcatcca ggaggcgagg ctgcatggtc
 300
 cagcgggtggg tgcagggtggc aacagggtcgg cgggctgtgc aggttccaaa aggagctctc
 360
 ggggttgccac tgggtgagac cagccccggg gccagcaggg gaatgagcgg tggagcaggg
 420
 gggtgttggg cactgggggtg ggccccatct cctgtccttc cctcatggct gctggaaggg
 480
 ccgcctccct ggctcagcat catctcagat tccgggactc aaacaccgtc tctcgtcgc
 540
 tgtccagcga ggccatctcc gtgggggtcct cagtgttggc gaggaggccg tatcgctcc
 600
 gctgaggttt cttaacctta aacgcccga tcaggaagta gagcgcggtc aggccgcaga
 660
 agcccaggat cacgtagaag gagcgcgta gcgcccagcc cgacgcccc ggccgacgcg
 720
 tgtcgtgtgt gttgtgtggc gcgcccggct ggctcccggt cgtcacggcc ggccgcccgc
 780
 acaacgtgac ctggcggggg cagcggcgag cctcttcggc accgcacggc agcgccgcca
 840
 gcagcagcgc cagcaggagc agcagcagcg gcggctgcag cagcgc
 885

<210> 4528

<211> 206

<212> PRT

<213> Homo sapiens

<400> 4528

Xaa	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe
1			5					10					15		
Cys	Arg	Asp	Met	Ala	Ala	Phe	Ile	Val	Pro	Ser	Pro	Ala	Arg	Arg	Cys
			20					25					30		
Ser	Gln	Lys	Gly	Ser	Leu	Gly	His	Leu	Pro	Thr	Gln	Pro	Trp	Leu	Trp
			35				40					45			
Ala	Ala	Met	Ser	Pro	Arg	Gly	Gln	Glu	Arg	Gly	Thr	Ser	His	Ser	Gln
			50				55				60				
Ala	Arg	Glu	Pro	Gln	Arg	Pro	Gly	Arg	Trp	Leu	Leu	Gly	Ser	Leu	Gln
					70					75					80
Ser	Ser	Pro	Gly	Thr	Leu	Gly	Gln	Ala	Gly	Thr	Ala	Ser	Arg	Arg	Arg
					85				90					95	
Gly	Cys	Met	Val	Gln	Arg	Trp	Val	Gln	Val	Ala	Thr	Gly	Arg	Arg	Ala
			100					105					110		
Val	Gln	Val	Pro	Lys	Gly	Ala	Leu	Gly	Leu	Ala	Leu	Gly	Glu	Thr	Ser
			115				120					125			
Pro	Gly	Ala	Ser	Arg	Gly	Met	Ser	Gly	Gly	Ala	Gly	Gly	Cys	Trp	Ala
			130				135					140			
Leu	Gly	Trp	Ala	Pro	Ser	Pro	Val	Leu	Pro	Ser	Trp	Leu	Leu	Glu	Gly

```

145          150          155          160
Pro Pro Pro Trp Leu Ser Ile Ile Ser Asp Ser Gly Thr Gln Thr Pro
          165          170          175
Ser Pro Arg Arg Cys Pro Ala Arg Pro Ser Pro Trp Gly Pro Gln Cys
          180          185          190
Trp Arg Gly Gly Arg Ile Ala Ser Ala Glu Ala Ser Ser Thr
          195          200          205

```

<210> 4529

<211> 546

<212> DNA

<213> Homo sapiens

<400> 4529

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nngagagctg agaggtggaa aatggcgctg acgtgagcgc gaactcgcac tgcccagagg
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gtggccgccc cctaagctgc agccgcccga gccgcagaaa caagaggccg agccgtgtcg
120
aagatggagg agaaaccctc agggcccatc ccggacatgc tggccactgc agagcccagc
180
tccagtgaga ccgacaagga ggtgtgtgcc ccggctgtgc cagctgcagc cccctcctcc
240
tccatgtcgg aggagccagg ccctgagcag gcagccacac cgccagtggg gaacgtggag
300
gggctggagg gatgcagcag ggctcctccc cagcccaga cagctgccag tctggccccg
360
gaccagccc tggcctgacc agcatagtct ccgggaccag cgaggacctg cggcctccca
420
gacgacccc acctccaggg aagcaaatec cttgtccag ccctggctgc tgctcagtt
480
ttcccagcgt ccgtgacctg gcacagcatc tgcgaacca ctgccgcgcg agccctatgc
540
agtctc
546

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<210> 4530

<211> 84

<212> PRT

<213> Homo sapiens

<400> 4530

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Met Glu Glu Lys Pro Ser Gly Pro Ile Pro Asp Met Leu Ala Thr Ala
1          5          10          15
Glu Pro Ser Ser Ser Glu Thr Asp Lys Glu Val Leu Ser Pro Ala Val
          20          25          30
Pro Ala Ala Ala Pro Ser Ser Ser Met Ser Glu Glu Pro Gly Pro Glu
          35          40          45
Gln Ala Ala Thr Pro Pro Val Gly Asn Val Glu Gly Leu Glu Gly Cys
          50          55          60
Ser Arg Ala Pro Pro Gln Pro Gln Thr Ala Ala Ser Leu Ala Pro Asp
65          70          75          80
Pro Ala Leu Ala

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<210> 4531

<211> 1414

<212> DNA

<213> Homo sapiens

<400> 4531

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60gccggtccct tgcagggcgg tggggcccgg gccctggacc tactccgggg cctgccgcgt
120gtgagcctgg ccaacttaaa gccgaatccc ggctccaaga aaccggagag aagaccaaga
180ggtcggagaa gaggtagaaa atgtggcaga ggccataaag gagaaaggca aagaggaacc
240cggccccgct tgggctttga gggaggccag actccatttt acatccgaat cccaaaatac
300gggtttaacg aaggacatag tttcagacgc cagtataagc ctttgagtct caatagactg
360cagtatctta ttgatttggg tcgtgtgat cctagtcaac ctattgactt aaccagctt
420gtcaatggga gaggtgtgac catccagcca cttaaaaggg attatggtgt ccagctggtt
480gaggaggggtg ctgacacctt tacggcaaaa gttaatattg aagtacagtt ggcttcagaa
540ctagctattg ctgccattga aaaaaatggt ggtgttggtta ctacagcctt ctatgatcca
600agaagtctgg acattgtatg caaacctggt ccattctttc ttcgtggaca acccattcca
660aaaagaatgc ttccaccaga agaactggtt ccatattaca ctgatgcaa gaaccgtggg
720tacctggcgg atcctgcaa atttctgaa gcacgacttg aactcgccag gaagtatggt
780tatatcttac ctgatatcac taaagatgaa ctcttcaaaa tgctctgtac taggaaggat
840ccaaggcaga ttttctttgg tcttgctcca ggatgggtgg tgaatatggc cgataagaaa
900atcctaaaac ctacagatga aaatctcctt aagtattata cctcatgaat tcccgtccaa
960ggaagcagag ttgttaaaga gtactggaat aggggctgaa ggatctatat tcccttattg
1020cattttcctt atgtataatt ttccagatgg tgatgttact tttcagtgt ctcatatgtc
1080tcattttcat ctaaaattaa atggcaggaa acaaggactg catagagaaa ctgagtctgt
1140gtgggttctg tctcaaagat acaaactccc tgatagtcta tggaaggaaa atgacaacta
1200ttttagaata tttctagttt gttttttcag tgatctttc atccaggcct tgttactgtt
1260acagatcaga atgaaatgca caagtggaat gggattgacc tgtaggcctg ctctgccgag
1320atgagagcag atggaatgag ttggtgacct ctcttaatct gtagcctcag ggaaacacgg
1380ctacccaatg ccaagatggt aaacctcac gcgt
1414

<210> 4532
 <211> 296
 <212> PRT
 <213> Homo sapiens

<400> 4532
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 1 5 10 15
 Arg Gly Leu Pro Arg Val Ser Leu Ala Asn Leu Lys Pro Asn Pro Gly
 20 25 30
 Ser Lys Lys Pro Glu Arg Arg Pro Arg Gly Arg Arg Arg Gly Arg Lys
 35 40 45
 Cys Gly Arg Gly His Lys Gly Glu Arg Gln Arg Gly Thr Arg Pro Arg
 50 55 60
 Leu Gly Phe Glu Gly Gly Gln Thr Pro Phe Tyr Ile Arg Ile Pro Lys
 65 70 75 80
 Tyr Gly Phe Asn Glu Gly His Ser Phe Arg Arg Gln Tyr Lys Pro Leu
 85 90 95
 Ser Leu Asn Arg Leu Gln Tyr Leu Ile Asp Leu Gly Arg Val Asp Pro
 100 105 110
 Ser Gln Pro Ile Asp Leu Thr Gln Leu Val Asn Gly Arg Gly Val Thr
 115 120 125
 Ile Gln Pro Leu Lys Arg Asp Tyr Gly Val Gln Leu Val Glu Glu Gly
 130 135 140
 Ala Asp Thr Phe Thr Ala Lys Val Asn Ile Glu Val Gln Leu Ala Ser
 145 150 155 160
 Glu Leu Ala Ile Ala Ala Ile Glu Lys Asn Gly Gly Val Val Thr Thr
 165 170 175
 Ala Phe Tyr Asp Pro Arg Ser Leu Asp Ile Val Cys Lys Pro Val Pro
 180 185 190
 Phe Phe Leu Arg Gly Gln Pro Ile Pro Lys Arg Met Leu Pro Pro Glu
 195 200 205
 Glu Leu Val Pro Tyr Tyr Thr Asp Ala Lys Asn Arg Gly Tyr Leu Ala
 210 215 220
 Asp Pro Ala Lys Phe Pro Glu Ala Arg Leu Glu Leu Ala Arg Lys Tyr
 225 230 235 240
 Gly Tyr Ile Leu Pro Asp Ile Thr Lys Asp Glu Leu Phe Lys Met Leu
 245 250 255
 Cys Thr Arg Lys Asp Pro Arg Gln Ile Phe Phe Gly Leu Ala Pro Gly
 260 265 270
 Trp Val Val Asn Met Ala Asp Lys Lys Ile Leu Lys Pro Thr Asp Glu
 275 280 285
 Asn Leu Leu Lys Tyr Tyr Thr Ser
 290 295

<210> 4533
 <211> 968
 <212> DNA
 <213> Homo sapiens

<400> 4533
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tttgcacacg tgtgcccctg tccggacgcc ggggctgagg ccgatcgctg cgggcagcgg
 120
 gcgcggcggc cccgcgcagc catggactgg ctcatgggga agtccaaagc caagcccaat
 180
 ggcaagaagc ccgctgcgga ggagaggaag gcctacctgg agcctgagca caccaaggcc
 240
 aggatcacgc acttccagtt caaggagctg gtggtgctgc cccgggagat cgacctcaac
 300
 gagtggctgg ccagcaacac aacaacattt ttccaccaca tcaacctgca gtatagcaca
 360
 atctcggagt tctgcacagg agagacgtgt cagacgatgg ccgtgtgcaa cacacgtac
 420
 tactggtatg acgagcgggg gaagaaggctc aagtgcacgg cccacagta cgttgacttc
 480
 gtcagtagct ccgtgcagaa gctggtgacg gatgaggacg tgttccccac aaaatacggc
 540
 agagaattcc ccagtcctt tgagtccctg gtgaggaaga tctgcagaca cctgttccac
 600
 gtgctggcac acatctactg ggcccacttc aaggagacgc tggccctgga gctgcacgga
 660
 cacttgaaca cgctctacgt ccacttcac cttttgctc gggagttcaa cctgctggac
 720
 cccaaagaga ccgccatcat ggacgacctc accgaggtgc tatgcagcgg ggccggcggg
 780
 gtccacagtg ggggcagtgg ggatggggcc ggcagcgggg gcccgggagc acagaaccac
 840
 gtgaaggaga gatgagcccc ccgggccgga caggggcaca cgtgtgcaaa gagacggtgg
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 960
 acacgcgt
 968

<210> 4534

<211> 284

<212> PRT

<213> Homo sapiens

<400> 4534

Thr	Arg	Ala	Gln	His	Met	Cys	Ala	His	Ala	Asp	Ala	Gly	Glu	Asn	Thr
1			5						10				15		
His	His	Arg	Leu	Phe	Ala	His	Val	Cys	Pro	Cys	Pro	Asp	Ala	Gly	Ala
		20					25					30			
Glu	Ala	Asp	Arg	Val	Gly	Gln	Arg	Ala	Arg	Arg	Pro	Arg	Ala	Ala	Met
		35				40					45				
Asp	Trp	Leu	Met	Gly	Lys	Ser	Lys	Ala	Lys	Pro	Asn	Gly	Lys	Lys	Pro
	50				55					60					
Ala	Ala	Glu	Glu	Arg	Lys	Ala	Tyr	Leu	Glu	Pro	Glu	His	Thr	Lys	Ala
65				70				75					80		
Arg	Ile	Thr	Asp	Phe	Gln	Phe	Lys	Glu	Leu	Val	Val	Leu	Pro	Arg	Glu
		85						90				95			
Ile	Asp	Leu	Asn	Glu	Trp	Leu	Ala	Ser	Asn	Thr	Thr	Thr	Phe	Phe	His
		100					105					110			
His	Ile	Asn	Leu	Gln	Tyr	Ser	Thr	Ile	Ser	Glu	Phe	Cys	Thr	Gly	Glu

115	120	125
Thr Cys Gln Thr Met Ala Val Cys Asn Thr Gln Tyr Tyr Trp Tyr Asp		
130	135	140
Glu Arg Gly Lys Lys Val Lys Cys Thr Ala Pro Gln Tyr Val Asp Phe		
145	150	155
Val Met Ser Ser Val Gln Lys Leu Val Thr Asp Glu Asp Val Phe Pro		
165	170	175
Thr Lys Tyr Gly Arg Glu Phe Pro Ser Ser Phe Glu Ser Leu Val Arg		
180	185	190
Lys Ile Cys Arg His Leu Phe His Val Leu Ala His Ile Tyr Trp Ala		
195	200	205
His Phe Lys Glu Thr Leu Ala Leu Glu Leu His Gly His Leu Asn Thr		
210	215	220
Leu Tyr Val His Phe Ile Leu Phe Ala Arg Glu Phe Asn Leu Leu Asp		
225	230	235
Pro Lys Glu Thr Ala Ile Met Asp Asp Leu Thr Glu Val Leu Cys Ser		
245	250	255
Gly Ala Gly Gly Val His Ser Gly Gly Ser Gly Asp Gly Ala Gly Ser		
260	265	270
Gly Gly Pro Gly Ala Gln Asn His Val Lys Glu Arg		
275	280	

<210> 4535

<211> 473

<212> DNA

<213> Homo sapiens

<400> 4535

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<210> 4536

<211> 75

<212> PRT

<213> Homo sapiens

<400> 4536

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Pro	Arg	Phe	Lys	Gln	Phe
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<210> 4537

<211> 2811

<212> DNA

<213> Homo sapiens

<400> 4537

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<210> 4538

<211> 437

<212> PRT

<213> Homo sapiens

<400> 4538

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 Arg Gly Asp Ile Val Phe Phe Leu Gln Lys Val His Ile Pro Glu Ser
 50 55 60
 Ile Leu Ile Phe Arg Asp Glu Ile Asp Leu His Ala Leu Tyr Gln Ala
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 Gly Gln Leu Thr Leu Ile Leu Val Asp His His Ile Leu Ser Lys Ser
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 100 105 110
 His Arg Ala Glu Thr Leu Pro Ser Leu Xaa His Val Ser Val Glu Leu
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 180 185 190
 Pro Lys Arg Asn Asp Ile Phe Asp Ser Leu Gln Lys Ala Lys Phe Asp
 195 200 205
 Val Ser Gly Leu Thr Thr Glu Gln Met Leu Arg Lys Asp Gln Lys Thr
 210 215 220
 Ile Tyr Arg Gln Gly Val Lys Val Ala Ile Ser Ala Ile Tyr Met Asp
 225 230 235 240
 Leu Glu Ala Phe Leu Gln Arg Ser Asn Leu Leu Ala Asp Leu His Ala
 245 250 255
 Phe Cys Gln Ala His Ser Tyr Asp Val Leu Val Ala Met Thr Ile Phe
 260 265 270
 Phe Asn Thr His Asn Glu Pro Val Arg Gln Leu Ala Ile Phe Cys Pro
 275 280 285
 His Val Ala Leu Gln Thr Thr Ile Cys Glu Val Leu Glu Arg Ser His
 290 295 300
 Ser Pro Pro Leu Lys Leu Thr Pro Ala Ser Ser Thr His Pro Asn Leu
 305 310 315 320
 His Ala Tyr Leu Gln Gly Asn Thr Gln Val Ser Arg Lys Lys Leu Leu
 325 330 335
 Pro Leu Leu Gln Glu Ala Leu Ser Ala Tyr Phe Asp Ser Met Lys Ile
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 Pro Ser Gly Gln Pro Glu Thr Ala Asp Val Ser Arg Glu Gln Val Asp
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 Lys Glu Leu Asp Arg Ala Ser Asn Ser Leu Ile Ser Gly Leu Ser Gln

370 375 380
 Asp Glu Glu Asp Pro Pro Leu Pro Pro Thr Pro Met Asn Ser Leu Val
 385 390 395 400
 Asp Glu Cys Pro Leu Asp Gln Gly Leu Pro Lys Leu Ser Ala Glu Ala
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<210> 4539

<211> 331

<212> DNA

<213> Homo sapiens

<400> 4539

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<210> 4540

<211> 99

<212> PRT

<213> Homo sapiens

<400> 4540

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 Lys Leu Gln Gln Glu Gln Arg Gln Val Glu Glu Leu Arg Met Gln Leu
 35 40 45
 Gln Lys Gln Lys Arg Asn Asn Cys Ser Glu Lys Lys Pro Leu Pro Phe
 50 55 60
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<210> 4541

<211> 452

<212> DNA

<213> Homo sapiens

<400> 4541

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<210> 4542

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4542

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			20					25					30		
Ser	Leu	Trp	Ile	Cys	Val	Gln	Ile	Val	Ile	Lys	Thr	Gln	Gly	Lys	Asn
		35				40						45			
Leu	Gln	Glu	Lys	Ser	Val	Pro	Lys	Ala	Ala	Gln	Asp	Leu	Met	Thr	Asn
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Ile	Phe	Tyr	Gly	Ser	Gln	Thr	Gly	Thr	Ala	Lys	Gly	Phe	Ala	Thr	Val
			85					90					95		
Leu	Ala	Glu	Ala	Val	Thr	Ser	Leu	Asp	Leu	Pro	Val	Ala	Ile	Ile	Asn
			100					105					110		
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<210> 4543

<211> 815

<212> DNA

<213> Homo sapiens

<400> 4543

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<210> 4544

<211> 150

<212> PRT

<213> Homo sapiens

<400> 4544

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		20					25					30			
His	Lys	Leu	Gln	Gly	Ala	Ala	Ala	Val	Ser	Leu	Ala	Arg	His	Trp	Pro
	35					40					45				
Ile	Thr	Ser	Asn	Arg	Leu	Gly	Arg	Ala	Pro	Val	Glu	Ser	Pro	Val	Pro
	50				55				60						
Ser	His	Phe	Arg	Arg	Val	Ala	Leu	Leu	Pro	Arg	Ser	Arg	Ser	Gln	Trp
65				70					75				80		
Pro	Asp	Lys	Gln	Ser	His	Ser	Gly	Val	Val	Arg	Pro	Gly	Arg	Val	Ser
			85					90				95			
Pro	Val	Gly	Gly	Arg	Gly	Ala	Leu	Ala	Arg	Arg	Val	Ser	Gly	Glu	Ala
		100				105						110			
Lys	Cys	Lys	Ala	Leu	Val	Arg	Gly	Ala	Ser	Gly	Ser	His	Gly	Gly	Ala
	115					120					125				
Ala	Gly	Gln	Gly	Pro	Ala	Val	Thr	Arg	Ser	Pro	Ser	Ser	Leu	Cys	Leu
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<210> 4545

<211> 3568

<212> DNA

<213> Homo sapiens

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<210> 4546

<211> 380

<212> PRT

<213> Homo sapiens

<400> 4546

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Asp	Pro	Val	Lys	Gly	Arg	Gly	Ile	Arg	Ile	Leu	Ser	Ile	Asp	Gly	Gly
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Gly	Thr	Arg	Gly	Val	Val	Ala	Leu	Gln	Thr	Leu	Arg	Lys	Leu	Val	Glu
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Leu	Thr	Gln	Lys	Pro	Val	His	Gln	Leu	Phe	Asp	Tyr	Ile	Cys	Gly	Val
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Ser	Thr	Gly	Ala	Ile	Leu	Ala	Phe	Met	Leu	Gly	Leu	Phe	His	Met	Pro
			85					90					95		
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Ser	Gln	Asn	Val	Ile	Val	Gly	Thr	Val	Lys	Met	Ser	Trp	Ser	His	Ala
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Phe	Tyr	Asp	Ser	Gln	Thr	Trp	Glu	Asn	Ile	Leu	Lys	Asp	Arg	Met	Gly
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<211> 515

<212> PRT

<213> Homo sapiens

<400> 4548

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Val	Ser	Thr	Val	Glu	Glu	Gln	Glu	Asn	Glu	Thr	Pro	Pro	Ala	Thr	Ser

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<210> 4549

<211> 2927

<212> DNA

<213> Homo sapiens

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<211> 908

<212> PRT

<213> Homo sapiens

<400> 4550

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Tyr	Val	Glu	Thr	Val	Asp	Ile	Asp	Gly	Glu	Thr	Asn	Leu	Lys	Phe	Arg
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Gln	Ala	Leu	Met	Val	Thr	His	Lys	Glu	Leu	Ala	Thr	Ile	Lys	Lys	Met
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His	His	Phe	Val	Gly	Cys	Leu	Glu	Trp	Asn	Asp	Lys	Lys	Tyr	Ser	Leu
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Asp	Ile	Gly	Asn	Leu	Leu	Leu	Arg	Gly	Cys	Arg	Ile	Arg	Asn	Thr	Asp
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Thr	Cys	Tyr	Gly	Leu	Val	Ile	Tyr	Ala	Asp	Gly	Tyr	Met	Phe	Val	Gly
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Phe	Asp	Thr	Lys	Ile	Met	Lys	Asn	Cys	Gly	Lys	Ile	His	Leu	Lys	Arg
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Ser	Val	Val	Leu	Val	Cys	Leu	Val	Leu	Ala	Phe	Gly	Phe	Gly	Phe	Ser
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Val	Lys	Glu	Phe	Lys	Asp	His	His	Tyr	Tyr	Leu	Ser	Gly	Val	His	Gly
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Val	Tyr	Gly	Glu	Pro	Leu	Pro	Leu	Glu	Gln	Val	Arg	Arg	Arg	Glu	Ala
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Ala	Leu	Pro	Gln	Cys	Gly	Pro	Ala	Ala	Pro	Arg	Ala	Asp	Gln	Arg	Gly
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Arg	Gly	Arg	Ala	Gly	Val	Leu	Ala	Pro	Ala	Gly	His	Leu	Pro	His	Gly
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Asp	Asp	Gln	Leu	Leu	Tyr	Gln	Ala	Ala	Ser	Pro	Asp	Glu	Gly	Ala	Leu

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 Gly Gln Glu Gly Met Gln Ala Val Gln Asn Ser Asp Phe Val Leu Gly
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 740 745 750
 Tyr Val Arg Ile Cys Lys Phe Leu Arg Tyr Phe Phe Tyr Lys Ser Met
 755 760 765
 Ala Ser Met Met Val Gln Val Trp Phe Ala Cys Tyr Asn Gly Phe Thr

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Val Val Gly Gln Lys Asp Glu Leu Phe Asn Tyr Trp Val Phe Val Gln				
	805		810	815
Ala Ile Ala His Gly Val Thr Thr Ser Leu Val Asn Phe Phe Met Thr				
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Leu Trp Ile Ser Arg Asp Thr Ala Gly Pro Ala Ser Phe Ser Asp His				
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Gln Ser Phe Ala Val Val Val Ala Leu Ser Cys Leu Leu Ser Ile Thr				
	850		855	860
Met Glu Val Ile Leu Ile Ile Lys Tyr Trp Thr Ala Leu Cys Val Ala				
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Thr Ile Leu Leu Ser Leu Gly Phe Tyr Ala Ile Met Thr Thr Thr Thr				
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<212> DNA

<213> Homo sapiens

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<400> 4552

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<211> 705

<212> PRT

<213> Homo sapiens

<400> 4554

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Cys	Asp	Cys	Val	Ile	Arg	Trp	Met	Asn	Met	Asn	Lys	Thr	Asn	Ile	Arg						
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705

<210> 4555

<211> 1128

<212> DNA

<213> Homo sapiens

<400> 4555

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<210> 4556

<211> 67

<212> PRT

<213> Homo sapiens

<400> 4556

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			20					25					30		
Gly	Leu	Lys	Leu	Ala	Leu	Cys	Gly	Thr	Val	Leu	Asp	His	Leu	Val	Gly
		35				40						45			
Glu	Glu	Thr	Met	Ala	Asp	Tyr	Leu	Leu	Tyr	Thr	Leu	Asn	Lys	His	Gln
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<210> 4557

<211> 446

<212> DNA

<213> Homo sapiens

<400> 4557

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<210> 4558

<211> 148

<212> PRT

<213> Homo sapiens

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Lys Ala Val Arg Cys Ala Gln Asp His Leu Gly His Ser His Pro Pro
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Glu Thr Ser Arg Ala Phe Leu Pro Pro Pro Ser Asp Val Arg Val Arg
50     55     60
Ser Cys Leu Tyr His Trp Ser Ala Thr Ala His Leu Pro Pro Leu Ser
65     70     75     80
Lys Lys Pro Pro Cys Thr Ile Ser His Leu Arg Pro Leu Leu Gly Leu
85     90     95
Pro Pro Pro Ser Asp Leu His Ile Pro Ser Ala Ala Thr Leu Gly Pro
100    105    110
Cys Met His Trp Pro Pro Pro Ser Asp Ala Pro Cys Thr Ile Ser Leu
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Thr Ser Thr Arg
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<210> 4559

<211> 919

<212> DNA

<213> Homo sapiens

<400> 4559

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<210> 4560

<211> 126

<212> PRT

<213> Homo sapiens

<400> 4560

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Pro Cys Asp Pro Asp Arg Asp Gln Arg Tyr Leu Thr Thr Tyr Asn Gln
      35             40             45
Gly Tyr Phe Glu Asn Ile Pro Lys Gly Leu Asp Gln Glu Gly Trp Thr
      50             55             60
Arg Gly Gly Ile Gln Pro Gln Met Pro Gly Gly Tyr Ala Leu Ser Gln
      65             70             75             80
Pro Val Ser Cys Met Glu Ala Thr Pro Asn Pro Met Glu Ser Leu Arg

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<210> 4561

<211> 4172

<212> DNA

<213> Homo sapiens

<400> 4561

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<211> 1182

<212> PRT

<213> Homo sapiens

<400> 4562

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 Asp Leu Ser Asp Pro Ser Leu Asp Met Lys Ser Cys Ala Thr Phe Ser
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 Ser Lys Gly Asp Val Ser Gly Val Leu Ile Ala Gly Gly Glu Asn Gly
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 Asn Ile Ile Leu Tyr Asp Pro Ser Lys Ile Ile Ala Gly Asp Lys Glu
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 Ser Glu Ile Tyr Ile Trp Asp Leu Asn Asn Phe Ala Thr Pro Met Thr
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 Pro Gly Ala Lys Thr Gln Pro Pro Glu Asp Ile Ser Cys Ile Ala Trp
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 180 185 190
 Ala Thr Val Trp Asp Leu Arg Glu Asn Glu Pro Ile Ile Lys Val Ser
 195 200 205
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 225 230 235 240
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 Glu Asn His Ala Arg Gly Ile Leu Ala Ile Ala Trp Ser Met Ala Asp
 260 265 270
 Pro Glu Leu Leu Ser Cys Gly Lys Asp Ala Lys Ile Leu Cys Ser
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 Trp Cys Phe Asp Ile Gln Trp Cys Pro Arg Asn Pro Ala Val Leu Ser
 305 310 315 320
 Ala Ala Ser Phe Asp Gly Arg Ile Ser Val Tyr Ser Ile Met Gly Gly
 325 330 335
 Ser Thr Asp Gly Leu Arg Gln Lys Gln Val Asp Lys Leu Ser Ser Ser
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 Gln Ile Pro Gln Gln Thr Ala Gln His Ser Ile Val Leu Pro Leu Lys
 370 375 380
 Lys Pro Pro Lys Trp Ile Arg Arg Pro Val Gly Ala Ser Phe Ser Phe
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 405 410 415
 Gly Ala Glu Gln Gln Gln Gln His His Val Phe Ile Ser Gln Val
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 Val Thr Glu Lys Glu Phe Leu Ser Arg Ser Asp Gln Leu Gln Gln Ala
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Ser Glu Phe Leu Pro Ser Ser Gly Gly Thr Phe Asn Ile Ser Val Ser					
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Glu Ser Ala Val Asp Leu Cys Leu His Asp Asn Arg Met Ala Asp Ala					
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Ile Ile Leu Ala Ile Ala Gly Gly Gln Glu Leu Leu Ala Arg Thr Gln					
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Lys Lys Tyr Phe Ala Lys Ser Gln Ser Lys Ile Thr Arg Leu Ile Thr					
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Ala Val Val Met Lys Asn Trp Lys Glu Ile Val Glu Ser Cys Asp Leu					
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Lys Asn Trp Arg Glu Ala Leu Ala Ala Val Leu Thr Tyr Ala Lys Pro					
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Asp Glu Phe Ser Ala Leu Cys Asp Leu Leu Gly Thr Arg Leu Glu Asn					
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Glu Gly Asp Ser Leu Leu Gln Thr Gln Ala Cys Leu Cys Tyr Ile Cys					
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Ala Gly Asn Val Glu Lys Leu Val Ala Cys Trp Thr Lys Ala Gln Asp					
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Gly Val Leu Leu Ala Ala Lys Met Ser Gln Tyr Ala Asn Leu Leu Ala					
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Gly Glu Pro Val Ala Gly His Glu Ser Pro Lys Ile Pro Tyr Glu Lys					
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Gln Gln Leu Pro Lys Gly Arg Pro Gly Pro Val Ala Gly His His Gln					
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Met Pro Arg Val Gln Thr Gln Gln Tyr Tyr Pro His Gly Glu Asn Pro					
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Pro Pro Pro Gly Phe Ile Met His Gly Asn Val Asn Pro Asn Ala Ala					
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Gly Gln Leu Pro Thr Ser Pro Gly His Met His Thr Gln Val Pro Pro					
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Tyr Pro Gln Pro Gln Pro Tyr Gln Pro Ala Gln Pro Tyr Pro Phe Gly					
	835		840		845
Thr Gly Gly Ser Ala Met Tyr Arg Pro Gln Gln Pro Val Ala Pro Pro					
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Thr Ser Asn Ala Tyr Pro Asn Thr Pro Tyr Ile Ser Ser Ala Ser Ser					
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Tyr Thr Gly Gln Ser Gln Leu Tyr Ala Ala Gln His Gln Ala Ser Ser					

885 890 895
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 Tyr Ala Leu Pro Pro Gly Thr Thr Gly Thr Leu Pro Ala Ala Ser Glu
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 965 970 975
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 980 985 990
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 1125 1130 1135
 Arg Ser Ile Glu Thr Arg Asn Tyr Ser Glu Gly Leu Thr Met His Thr
 1140 1145 1150
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<210> 4563

<211> 2037

<212> DNA

<213> Homo sapiens

<400> 4563

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300

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<210> 4564

<211> 354

<212> PRT

<213> Homo sapiens

<400> 4564

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			20					25					30		
Asp	Glu	Asp	Gly	Leu	Val	Val	Leu	Val	Phe	Asn	Lys	Lys	Glu	Thr	Glu
			35				40					45			
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Pro	Asp	Asp	Gln	Thr	Glu	Val	Val	Ile	Tyr	Val	Val	Glu	Arg	Ser	Pro
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Asn	Gly	Thr	Ser	Arg	Arg	Val	Pro	Ala	Thr	Thr	Leu	Tyr	Ala	His	Phe
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Glu	Gln	Ala	Asn	Ile	Lys	Thr	Gln	Leu	Gln	Gln	Leu	Gly	Val	Thr	Leu
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Ser	Met	Thr	Arg	Thr	Glu	Leu	Ser	Pro	Ala	Gln	Ile	Arg	Gln	Leu	Leu
	130					135					140				
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Val	Asp	Asn	Pro	Asp	Ser	Glu	Lys	Leu	Ile	Pro	Val	Pro	Met	Val	Gly
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		210				215					220				
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Gln	Phe	Lys	Gly	Arg	Leu	Asn	Glu	Leu	Met	Ser	Gln	Ile	Arg	Met	Gln
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Asn	His	Phe	Gly	Ala	Val	Arg	Ser	Glu	Glu	Arg	Tyr	Tyr	Ile	Asp	Ala
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Asp	Leu	Leu	Arg	Glu	Ile	Lys	Gln	His	Leu	Lys	Gln	Gln	Gln	Glu	Gly
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Leu	Ser	His	Leu	Ile	Ser	Ile	Ile	Lys	Asp	Asp	Leu	Glu	Asp	Ile	Lys
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<211> 2344
<212> DNA
<213> Homo sapiens

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<210> 4566

<211> 247

<212> PRT

<213> Homo sapiens

<400> 4566

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			20					25					30		
Glu	Ile	Leu	Arg	Leu	Arg	Gln	Ser	Glu	Arg	Met	Ser	Gln	Asp	Asp	Phe
		35				40						45			
Gln	Ser	Pro	Pro	Ile	Val	Glu	Leu	Arg	Glu	Lys	Ile	Gln	Pro	Glu	Ile
	50					55					60				
Leu	Glu	Leu	Ile	Lys	Gln	Arg	Leu	Asn	Arg	Leu	Cys	Glu	Gly	Ser	
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Ser	Phe	Arg	Lys	Ile	Gly	Asn	Arg	Arg	Arg	Gln	Glu	Arg	Phe	Trp	Tyr

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<210> 4568

<211> 120

<212> PRT

<213> Homo sapiens

<400> 4568

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			20					25					30		
Leu	Arg	Gly	Gln	Ser	Val	Gln	Gln	Val	Gly	Pro	Gln	Gly	Leu	Leu	Tyr
			35				40					45			
Val	Gln	Gln	Arg	Glu	Leu	Ala	Val	Thr	Ser	Pro	Lys	Asp	Gly	Ser	Ile
	50				55					60					
Ser	Ile	Leu	Gly	Ser	Asp	Ala	Thr	Thr	Cys	His	Ile	Val	Val	Leu	
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Arg	His	Thr	Gly	Asn	Gly	Ala	Thr	Cys	Leu	Thr	His	Cys	Asp	Gly	Thr
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Asp	Thr	Lys	Ala	Glu	Val	Pro	Leu	Ile	Met	Asn	Ser	Ile	Lys	Ser	Phe
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<210> 4569

<211> 1797

<212> DNA

<213> Homo sapiens

<400> 4569

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<210> 4570

<211> 141
 <212> PRT
 <213> Homo sapiens

<400> 4570

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Met	Leu	Leu	Tyr	Leu	Phe	Arg	Arg	Ala	Ala	Ser	Ile	Thr	Leu	Ala	Thr
			20					25					30		
Gln	Thr	Trp	His	Ile	Arg	Phe	Gly	Asp	Asn	Gly	Leu	Gly	Thr	Leu	Met
		35					40					45			
Leu	Leu	Gly	Pro	Gly	Glu	Thr	Val	Leu	Arg	Gln	Lys	Leu	Gly	Val	Gln
	50					55					60				
Gly	Gly	Pro	Arg	Val	Arg	His	Cys	Gly	Glu	Gly	Asn	Ala	Gly	Glu	Ser
65					70					75				80	
Gly	Pro	Thr	Leu	Gln	Leu	Gly	Thr	Arg	Gly	Arg	Lys	Gln	Arg	Gly	Gln
			85					90					95		
Ala	Ser	Val	Pro	Leu	Pro	Gln	Glu	Gln	Thr	Ser	Gly	Pro	Gln	Glu	Gly
			100					105					110		
Leu	Gln	Ala	Ala	Arg	Ser	Leu	Pro	Ser	Ala	Gly	Gly	Ser	Arg	Gly	Arg
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<210> 4571
 <211> 1084
 <212> DNA
 <213> Homo sapiens

<400> 4571

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600
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720

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<210> 4572

<211> 126

<212> PRT

<213> Homo sapiens

<400> 4572

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Lys	Thr	Gln	Gln	Asn	Arg	Lys	Leu	Thr	Asp	Phe	Tyr	Pro	Val	Arg	Arg
		20					25						30		
Ser	Ser	Arg	Lys	Ser	Lys	Ala	Glu	Leu	Gln	Ser	Glu	Glu	Arg	Lys	Arg
		35					40					45			
Ile	Asp	Glu	Leu	Ile	Glu	Ser	Gly	Lys	Glu	Glu	Gly	Met	Lys	Ile	Asp
50					55					60					
Leu	Ile	Asp	Gly	Lys	Gly	Arg	Gly	Val	Ile	Ala	Thr	Lys	Gln	Phe	Ser
65				70				75						80	
Arg	Gly	Asp	Phe	Val	Val	Glu	Tyr	His	Gly	Asp	Leu	Ile	Glu	Ile	Thr
			85					90					95		
Asp	Ala	Lys	Lys	Arg	Glu	Ala	Leu	Tyr	Ala	Gln	Asp	Pro	Ser	Thr	Gly
		100					105					110			
Cys	Tyr	Met	Tyr	Tyr	Phe	Gln	Tyr	Leu	Ser	Lys	Thr	Tyr	Trp		
		115					120					125			

<210> 4573

<211> 309

<212> DNA

<213> Homo sapiens

<400> 4573

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309

<210> 4574

<211> 103

<212> PRT

<213> Homo sapiens

<400> 4574

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 35 40 45
 Ala Gly Ala Val Gly Thr Pro Gly Lys Arg Gly Pro Ser Gly Pro Gln
 50 55 60
 Gly Leu Leu Gly Pro Pro Gly Pro Pro Ala Pro Val Gly Pro Pro His
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<210> 4575

<211> 1068

<212> DNA

<213> Homo sapiens

<400> 4575

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<210> 4576

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4576

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			20					25					30		
Pro	Ala	Arg	His	Val	Ala	Thr	Ala	Gln	Gly	Glu	Val	Leu	Pro	Pro	Gly
			35				40					45			
Gly	Leu	Gly	Gly	Ala	Ala	Gln	Arg	Ala	Arg	Gly	Gln	Ser	His	Gly	Gly
	50					55				60					
Thr	Val	Pro	Gly	Asn	Ala	Pro	Ala	Ala	Asp	Leu	Leu	Ala	Leu	Ser	Pro
65				70						75				80	
Arg	Leu	Glu	Arg	Ser	Gly	Thr	Ile	Ser	Thr	His	Cys	Lys	Leu	Arg	Leu
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<210> 4577

<211> 3525

<212> DNA

<213> Homo sapiens

<400> 4577

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<210> 4578

<211> 1007

<212> PRT

<213> Homo sapiens

<400> 4578

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      35          40          45
Ser Val Gln Cys Thr Pro Pro Ser Ser Ser Ser Gly Ser Gln Gly Ser
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Gly Gln Lys Pro Trp Pro Trp His Leu Leu Leu Pro Ile Gly Asn Glu
 65          70          75          80
Gly Leu Ile His Glu Leu His Phe Met Asp Glu Leu Val Lys Val Glu
      85          90          95
Ala His Asp Ala Glu Val Leu Cys Leu Glu Tyr Ser Lys Pro Glu Thr
      100          105          110
Gly Leu Thr Leu Leu Ala Ser Ala Ser Arg Asp Arg Leu Ile His Val
      115          120          125
Leu Asn Val Glu Lys Asn Tyr Asn Leu Glu Gln Thr Leu Asp Asp His
      130          135          140
Ser Ser Ser Ile Thr Ala Ile Lys Phe Ala Gly Asn Arg Asp Ile Gln
      145          150          155          160
Met Ile Ser Cys Gly Ala Asp Lys Ser Ile Tyr Phe Arg Ser Ala Gln
      165          170          175
Gln Gly Ser Asp Gly Leu His Phe Val Arg Thr His His Val Ala Glu
      180          185          190
Lys Thr Thr Leu Tyr Asp Met Asp Ile Asp Ile Thr Gln Lys Tyr Val
      195          200          205
Ala Val Ala Cys Gln Asp Arg Asn Val Arg Val Tyr Asn Thr Val Asn
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Gly Lys Gln Lys Lys Cys Tyr Lys Gly Ser Gln Gly Asp Glu Gly Ser
      225          230          235          240
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      245          250          255
Cys Ser Asp Lys Ser Ile Ser Val Ile Asp Phe Tyr Ser Gly Glu Cys
      260          265          270
Ile Ala Lys Met Phe Gly His Ser Gly Gly Cys Ala Ser Leu Leu Gly
      275          280          285
Met Pro Pro His Pro Pro Thr Pro Ser Asp Ser Glu Gly Lys Cys Ser
      290          295          300
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Asp Cys His His Leu Ile Thr Val Ser Gly Asp Ser Cys Val Phe Ile
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Trp His Leu Gly Pro Glu Ile Thr Asn Cys Met Lys Gln His Leu Leu
      340          345          350
Glu Ile Asp His Arg Gln Gln Gln Gln His Thr Asn Asp Lys Lys Arg
      355          360          365
Ser Gly His Pro Arg Ser Trp Gln Pro Leu Pro Val His Gln Arg Asp
      370          375          380
Glu Ser Leu Pro Gly Pro His Gly Val Met Leu Gly Thr Gln Ser Ser
      385          390          395          400
Leu Pro Ala Asn Gln Arg Gln Ala Ala Thr Val Gly Lys Ala Ala Gly

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3775

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Asn Pro Gln Leu Pro Glu Ala Arg Pro Gly Ile Pro Gly Gly Thr Ala		
865	870	875
Ser Leu Leu Glu Pro Thr Ser Gly Trp Gly Thr Ser Cys Thr Gly Cys		
885	890	895
Arg Pro Pro Ser Lys Lys Pro Ser Thr Phe Thr Val Cys Trp Ser Pro		
900	905	910
Val Ala Arg Trp Thr Pro Gly Ser Ser Arg His Gly Leu Ser Trp Ser		
915	920	925
Pro Pro Ser Cys Gly Ser Thr Ala Ser Trp Arg Leu Asn Ala Trp Trp		
930	935	940
Gly Leu Val Trp Pro Gln Pro Arg Leu Cys Pro Ala Gln Asp Pro Arg		
945	950	955
Pro His Arg Arg Cys Thr Pro Trp Pro Ala Gln Thr Cys Arg Pro Cys		
965	970	975
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<210> 4579

<211> 321

<212> DNA

<213> Homo sapiens

<400> 4579

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<211> 107

<212> PRT

<213> Homo sapiens

<400> 4580

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<210> 4581

<211> 1396

<212> DNA

<213> Homo sapiens

<400> 4581

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<210> 4582

<211> 354

<212> PRT

<213> Homo sapiens

<400> 4582

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<210> 4583

<211> 3350

<212> DNA

<213> Homo sapiens

<400> 4583

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<211> 923

<212> PRT

<213> Homo sapiens

<400> 4584

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			20					25					30		
Trp	Leu	Gly	Glu	Leu	Gln	Arg	Ser	Val	His	Ala	Trp	Glu	Ile	Ser	Asp
		35					40					45			
Gln	Leu	Leu	Gln	Ile	Arg	Gln	Asp	Val	Glu	Ser	Cys	Tyr	Phe	Ala	Ala
		50				55					60				
Gln	Thr	Met	Lys	Met	Lys	Ile	Gln	Thr	Ser	Phe	Tyr	Glu	Leu	Pro	Thr
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Asp	Ser	His	Ala	Ser	Leu	Arg	Asp	Ser	Leu	Leu	Thr	His	Ile	Gln	Asn
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		100						105					110		
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		130				135					140				
Glu	Ile	Leu	Thr	Val	Leu	Pro	Glu	Glu	Val	His	Ser	Arg	Ser	Leu	Arg
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Ser	Ser	Thr	Val	Val	Ser	Leu	Leu	Met	Thr	Cys	Val	Glu	Lys	Ala	Gly
		180						185					190		
Thr	Asp	Glu	Lys	Met	Leu	Met	Lys	Val	Phe	Arg	Cys	Leu	Gly	Ser	Trp
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Phe	Asn	Leu	Gly	Val	Leu	Asp	Ser	Asn	Phe	Met	Ala	Asn	Asn	Lys	Leu
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<210> 4585

<211> 1952

<212> DNA

<213> Homo sapiens

<400> 4585

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<210> 4586

<211> 530

<212> PRT

<213> Homo sapiens

<400> 4586

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Arg Ile Pro Ser Leu Gln Gln Leu His Leu Gln Arg Asn Ala Leu Cys
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Arg His Cys Pro Leu Glu Phe Pro Pro Gln Leu Val Val Gln Lys Gly
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Leu Val Ala Ile Gln Arg Phe Leu Arg Met Trp Ala Val Glu His Ser
          165          170          175
Leu Pro Arg Asn Pro Thr Ser Gln Glu Ala Pro Pro Val Arg Glu Met
          180          185          190
Thr Leu Arg Asp Leu Pro Ser Pro Gly Leu Glu Leu Ser Gly Asp His
          195          200          205
Ala Ser Asn Gln Gly Ala Val Asn Ala Gln Asp Pro Glu Gly Ala Val
          210          215          220
Met Lys Glu Lys Ala Ser Phe Leu Pro Pro Val Glu Lys Pro Asp Leu
          225          230          235          240
Ser Glu Leu Arg Lys Ser Ala Asp Ser Ser Glu Asn Trp Pro Ser Glu
          245          250          255
Glu Glu Ile Arg Arg Phe Trp Lys Leu Arg Gln Glu Ile Val Glu His
          260          265          270
Val Lys Ala Asp Val Leu Gly Asp Gln Leu Leu Thr Arg Glu Leu Pro
          275          280          285
Pro Asn Leu Lys Ala Ala Leu Asn Ile Glu Lys Glu Leu Pro Lys Pro
          290          295          300
Arg His Val Phe Arg Arg Lys Thr Ala Ser Ser Arg Ser Ile Leu Pro
          305          310          315          320
Asp Leu Leu Ser Pro Tyr Gln Met Ala Ile Arg Ala Lys Arg Leu Glu
          325          330          335
Glu Ser Arg Ala Ala Ala Leu Arg Glu Leu Gln Glu Lys Gln Ala Leu
          340          345          350
Met Glu Gln Gln Arg Arg Glu Lys Arg Ala Leu Gln Glu Trp Arg Glu
          355          360          365
Arg Ala Gln Arg Met Arg Lys Arg Lys Glu Glu Leu Ser Lys Leu Leu
          370          375          380
Pro Pro Arg Arg Ser Met Val Ala Ser Lys Ile Pro Ser Ala Thr Asp

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385 390 395 400
 Leu Ile Asp Asn Arg Lys Val Pro Leu Asn Pro Pro Gly Lys Met Lys
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 Pro Ser Lys Glu Lys Ser Pro Gln Ala Ser Lys Glu Met Ser Ala Leu
 420 425 430
 Gln Glu Arg Asn Leu Glu Glu Lys Ile Lys Gln His Val Leu Gln Met
 435 440 445
 Arg Glu Gln Arg Arg Phe His Gly Gln Ala Pro Leu Glu Glu Met Arg
 450 455 460
 Lys Ala Ala Glu Asp Leu Glu Ile Ala Thr Glu Leu Gln Asp Glu Val
 465 470 475 480
 Leu Lys Leu Lys Leu Gly Leu Thr Leu Asn Lys Asp Arg Arg Arg Ala
 485 490 495
 Ala Leu Thr Gly Asn Leu Ser Leu Gly Leu Pro Ala Ala Gln Pro Gln
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 Asn Thr Phe Phe Asn Thr Lys Tyr Gly Glu Ser Gly Asn Val Arg Arg
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 Tyr Gln
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<210> 4587

<211> 1723

<212> DNA

<213> Homo sapiens

<400> 4587

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 780
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<210> 4588

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4588

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Ser	Lys	Lys	Asn	Gln	Pro	Pro	Ser	Lys	Ala	Pro	Lys	Leu	His	Ser	Glu
			20					25				30			
Pro	Ser	Lys	Lys	Gly	Glu	Thr	Pro	Thr	Val	Asp	Gly	Thr	Trp	Lys	Thr
			35				40					45			
Pro	Ser	Phe	Pro	Lys	Lys	Lys	Thr	Ala	Ala	Ser	Ser	Asn	Gly	Ser	Gly
			50				55					60			
Gln	Pro	Leu	Asp	Lys	Lys	Ala	Ala	Val	Ser	Trp	Leu	Thr	Pro	Ala	Pro
65				70					75				80		
Ser	Lys	Lys	Ala	Asp	Ser	Val	Ala	Ala	Lys	Val	Asp	Leu	Leu	Gly	Glu
			85						90				95		
Phe	Gln	Ser	Ala	Leu	Pro	Lys	Ile	Asn	Ser	His	Pro	Thr	Arg	Ser	Gln
			100					105					110		
Lys	Lys	Ser	Ser	Gln	Lys	Lys	Ser	Ser	Lys	Lys	Asn	His	Pro	Gln	Lys
			115				120					125			
Asn	Ala	Pro	Gln	Asn	Ser	Thr	Gln	Ala	His	Ser	Glu	Asn	Lys	Cys	Ser

130	135	140
Gly Ala Ser Gln Lys Leu Pro Arg Lys Met Val Ala Ile Asp Cys Glu		
145	150	155
Met Val Gly Thr Gly Pro Lys Gly His Val Ser Ser Leu Ala Arg Cys		160
	165	170
Ser Ile Val Asn Tyr Asn Gly Asp Val Leu Tyr Asp Glu Tyr Ile Leu		175
	180	185
Pro Pro Cys His Ile Val Asp Tyr Arg Thr Arg Trp Ser Gly Ile Arg		190
	195	200
Lys Gln His Met Val Asn Ala Thr Pro Phe Lys Ile Ala Arg Gly Gln		205
	210	215
Ile Leu Lys Ile Leu Thr Gly Lys Ile Val Val Gly His Ala Ile His		220
225	230	235
Asn Asp Phe Lys Ala Leu Gln Tyr Phe His Pro Lys Ser Leu Thr Arg		240
	245	250
Asp Thr Ser His Ile Pro Pro Leu Asn Arg Lys Ala Asp Cys Pro Glu		255
	260	265
Asn Ala Thr Met Ser Leu Lys His Leu Thr Lys Lys Leu Leu Asn Arg		270
	275	280
Asp Ile Gln Val Gly Lys Ser Gly His Ser Ser Val Glu Asp Ala Gln		285
	290	295
Ala Thr Met Glu Leu Tyr Lys Leu Val Glu Val Glu Trp Glu Glu His		300
305	310	315
Leu Ala Arg Asn Pro Pro Thr Asp		320
	325	

<210> 4589

<211> 585

<212> DNA

<213> Homo sapiens

<400> 4589

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<210> 4590

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4590

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Met Leu Leu Gly Arg Leu Thr Ser Gln Leu Leu Arg Ala Val Pro Trp
 1           5           10           15
Ala Gly Arg Lys Pro Arg Gly Gly Xaa Gly Arg Met His Thr Trp Leu
          20           25           30
Gly Val Arg Val Ser Ala Ala Pro Leu Gly Gln Gly Gly His Thr
          35           40           45
His Thr Leu Ser Pro Leu Ser Phe Arg Cys Ser Gln Arg Glu Pro Gln
          50           55           60
Gly Phe Arg Pro Gly Met Arg Cys Gly Gly Ser Ser Leu Gly Arg Thr
          65           70           75           80
Cys Cys Ser Pro Thr Arg Arg Ala Cys Val Val Ser Arg Ala Val Thr
          85           90           95
Val Ala Ser Gly Phe Leu Gln Ala Ala Ala Arg Leu Gly Pro Ser Leu
          100          105          110
Glu Cys Trp Ala Ala Gly Ser Ala Gly
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<210> 4591

<211> 496

<212> DNA

<213> Homo sapiens

<400> 4591

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<210> 4592

<211> 152

<212> PRT

<213> Homo sapiens

<400> 4592

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	20	25	30
Lys Ala Ser	Ser Ile Tyr Ser Thr Ala Leu Cys Phe Gly Leu Lys Arg		
	35	40	45
Ala Pro Leu	Trp Pro Ser Gly His Asp Arg Leu His Glu Thr Arg Lys		
	50	55	60
Leu Arg Cys	Leu Ala Asp Arg Leu Val Ser Pro His Pro Ala Ser Ser		
65	70	75	80
Pro Gly Ser	Arg Tyr Leu Pro Gln Asn Ser Leu His Lys Trp Pro Gln		
	85	90	95
Ala Cys Ala	Gly Leu Trp Gly Phe Leu Pro Trp Ala Val Val Leu Gly		
	100	105	110
Met Cys Ser	Pro Gln Ala Asp Gly Gln Leu Trp Glu Gly Trp Ser Cys		
	115	120	125
Arg Leu Gly	Ile His Thr Pro Ala His Val Ala Ser Pro Ser Ala Val		
130	135	140	
Trp Ser Gln	Gly Trp Ala Gly Lys		
145	150		

<210> 4593

<211> 4783

<212> DNA

<213> Homo sapiens

<400> 4593

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180
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720
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780
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840

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<211> 1145

<212> PRT

<213> Homo sapiens

<400> 4594

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		20					25					30			
Phe	Ser	Ser	Phe	Ala	Ser	Gln	Ala	Ser	Gly	Ser	Ser	Ser	Ser	Ala	Thr
	35					40					45				
Thr	Val	Thr	Ser	Lys	Val	Ala	Pro	Ser	Trp	Pro	Glu	Ser	His	Ser	Ser
	50				55					60					
Ala	Asp	Ser	Ala	Ser	Leu	Ala	Lys	Lys	Lys	Pro	Leu	Phe	Ile	Thr	Thr
65				70					75					80	
Asp	Ser	Ser	Lys	Leu	Val	Ser	Gly	Val	Leu	Gly	Ser	Ala	Leu	Thr	Ser
			85					90					95		
Gly	Gly	Pro	Ser	Leu	Ser	Ala	Met	Gly	Asn	Gly	Arg	Ser	Ser	Ser	Pro
		100					105				110				
Thr	Ser	Ser	Leu	Thr	Gln	Pro	Ile	Glu	Met	Pro	Thr	Leu	Ser	Ser	Ser
	115				120						125				
Pro	Thr	Glu	Glu	Arg	Pro	Thr	Val	Gly	Pro	Gly	Gln	Gln	Asp	Asn	Pro
	130				135						140				
Leu	Leu	Lys	Thr	Phe	Ser	Asn	Val	Phe	Gly	Arg	His	Ser	Gly	Gly	Phe
145				150					155					160	
Leu	Ser	Ser	Pro	Ala	Asp	Phe	Ser	Gln	Glu	Asn	Lys	Ala	Pro	Phe	Glu
			165					170					175		
Ala	Val	Lys	Arg	Phe	Ser	Leu	Asp	Glu	Arg	Ser	Leu	Ala	Cys	Arg	Gln

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Asp	Ser	Asp	Ser	Ser	Thr	Asn	Ser	Asp	Leu	Ser	Asp	Leu	Ser	Asp	Ser	
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Glu	Glu	Gln	Leu	Gln	Ala	Lys	Thr	Gly	Leu	Lys	Gly	Ile	Pro	Glu	His	
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Leu	Met	Gly	Lys	Leu	Gly	Pro	Asn	Gly	Glu	Arg	Ser	Ala	Glu	Leu	Leu	
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Leu	Gly	Lys	Ser	Lys	Gly	Lys	Gln	Ala	Pro	Lys	Gly	Arg	Pro	Arg	Thr	
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Ile	Asn	Val	Ala	Pro	His	Leu	His	Lys	Cys	Arg	Glu	Cys	Arg	Leu	Glu	
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Arg	Tyr	Arg	Lys	Phe	Lys	Glu	Gln	Glu	Gln	Asp	Asp	Ser	Thr	Val	Ala	
305					310					315					320	
Cys	Arg	Phe	Phe	His	Phe	Arg	Arg	Leu	Ile	Phe	Thr	Arg	Lys	Gly	Val	
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Leu	Arg	Val	Glu	Gly	Phe	Leu	Ser	Pro	Gln	Gln	Ser	Asp	Pro	Asp	Ala	
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Met	Asn	Leu	Trp	Ile	Pro	Ser	Ser	Ser	Leu	Ala	Glu	Gly	Ile	Asp	Leu	
355					360					365						
Glu	Thr	Ser	Lys	Tyr	Ile	Leu	Ala	Asn	Val	Gly	Asp	Gln	Phe	Cys	Gln	
370					375					380						
Leu	Val	Met	Ser	Glu	Lys	Glu	Ala	Met	Met	Met	Val	Glu	Pro	His	Gln	
385					390					395					400	
Lys	Val	Ala	Trp	Lys	Arg	Ala	Val	Arg	Gly	Val	Arg	Glu	Met	Cys	Asp	
405					410					415						
Val	Cys	Glu	Thr	Thr	Leu	Phe	Asn	Ile	His	Trp	Val	Cys	Arg	Lys	Cys	
420					425					430						
Gly	Phe	Gly	Val	Cys	Leu	Asp	Cys	Tyr	Arg	Leu	Arg	Lys	Ser	Arg	Pro	
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Arg	Ser	Glu	Thr	Glu	Glu	Met	Gly	Asp	Glu	Glu	Val	Phe	Ser	Trp	Leu	
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Lys	Cys	Ala	Lys	Gly	Gln	Ser	His	Glu	Pro	Glu	Asn	Leu	Met	Pro	Thr	
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Gln	Ile	Ile	Pro	Gly	Thr	Ala	Leu	Tyr	Asn	Ile	Gly	Asp	Met	Val	His	
485					490					495						
Ala	Ala	Arg	Gly	Lys	Trp	Gly	Ile	Lys	Ala	Asn	Cys	Pro	Cys	Ile	Ser	
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Arg	Gln	Asn	Lys	Ser	Val	Leu	Arg	Pro	Ala	Val	Thr	Asn	Gly	Met	Ser	
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Gln	Leu	Pro	Ser	Ile	Asn	Pro	Ser	Ala	Ser	Ser	Gly	Asn	Glu	Thr	Thr	
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Phe	Ser	Gly	Gly	Gly	Gly	Pro	Ala	Pro	Val	Thr	Thr	Pro	Glu	Pro	Asp	
545					550					555					560	
His	Val	Pro	Lys	Ala	Asp	Ser	Thr	Asp	Ile	Arg	Ser	Glu	Glu	Pro	Leu	
565					570					575						
Lys	Thr	Asp	Ser	Ser	Ala	Ser	Asn	Ser	Ser	Ser	Glu	Leu	Lys	Ala	Ile	
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Arg	Pro	Pro	Cys	Pro	Asp	Thr	Ala	Pro	Pro	Ser	Ser	Ala	Leu	His	Trp	
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625	630	635
Leu Asp Ser Phe Asn Ser	Thr Ala Lys Val Ser	Pro Leu Thr Pro Lys
645	650	655
Leu Phe Asn Ser Leu Leu	Leu Gly Pro Thr Ala	Ser Asn Asn Lys Thr
660	665	670
Glu Gly Ser Ser Leu Arg	Asp Leu Leu His Ser	Gly Pro Gly Lys Leu
675	680	685
Pro Gln Thr Pro Leu Asp	Thr Gly Ile Pro Phe	Pro Pro Val Phe Ser
690	695	700
Thr Ser Ser Ala Gly Val	Lys Ser Lys Ala Ser	Leu Pro Asn Phe Leu
705	710	715
Asp His Ile Ile Ala Ser	Val Val Glu Asn Lys	Lys Thr Ser Asp Ala
725	730	735
Ser Lys Arg Ala Cys Asn	Leu Thr Asp Thr Gln	Lys Glu Val Lys Glu
740	745	750
Met Val Met Gly Leu Asn	Val Leu Asp Pro His	Thr Ser His Ser Trp
755	760	765
Leu Cys Asp Gly Arg Leu	Leu Cys Leu His Asp	Pro Ser Asn Lys Asn
770	775	780
Asn Trp Lys Ile Phe Arg	Glu Cys Trp Lys Gln	Gly Gln Pro Val Leu
785	790	795
Val Ser Gly Val His Lys	Lys Lys Leu Lys Ser	Glu Leu Trp Lys Pro Glu
805	810	815
Ala Phe Ser Gln Glu Phe	Gly Asp Gln Asp Val	Asp Leu Val Asn Cys
820	825	830
Arg Asn Cys Ala Ile Ile	Ser Asp Val Lys Val	Arg Asp Phe Trp Asp
835	840	845
Gly Phe Glu Ile Ile Cys	Lys Arg Leu Arg Ser	Glu Asp Gly Gln Pro
850	855	860
Met Val Leu Lys Leu Lys	Asp Trp Pro Pro Gly	Glu Asp Phe Arg Asp
865	870	875
Met Met Pro Thr Arg Phe	Glu Asp Leu Met Glu	Asn Leu Pro Leu Pro
885	890	895
Glu Tyr Thr Lys Arg Asp	Gly Arg Leu Asn Leu	Ala Ser Arg Leu Pro
900	905	910
Ser Tyr Phe Val Arg Pro	Asp Leu Gly Pro Lys	Met Tyr Asn Ala Tyr
915	920	925
Gly Leu Ile Thr Ala Glu	Asp Arg Arg Val Gly	Thr Thr Asn Leu His
930	935	940
Leu Asp Val Ser Asp Ala	Val Asn Val Met Val	Tyr Val Gly Ile Pro
945	950	955
Ile Gly Glu Gly Ala His	Asp Glu Glu Val Leu	Lys Thr Ile Asp Glu
965	970	975
Gly Asp Ala Asp Glu Val	Thr Lys Gln Arg Ile	His Asp Gly Lys Glu
980	985	990
Lys Pro Gly Ala Leu Trp	His Ile Tyr Ala Ala	Lys Asp Ala Glu Lys
995	1000	1005
Ile Arg Glu Leu Leu Arg	Lys Val Gly Glu Glu	Gln Gly Gln Glu Asn
1010	1015	1020
Pro Pro Asp His Asp Pro	Ile His Asp Gln Ser	Trp Tyr Leu Asp Gln
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Thr Leu Arg Lys Arg Leu	Tyr Glu Glu Tyr Gly	Val Gln Gly Trp Ala

	1045		1050		1055
Ile Val Gln Phe Leu Gly Asp Ala Val Phe Ile Pro Ala Gly Ala Pro					
	1060		1065		1070
His Gln Val His Asn Leu Tyr Ser Cys Ile Lys Val Ala Glu Asp Phe					
	1075		1080		1085
Val Ser Pro Glu His Val Lys His Cys Phe Arg Leu Thr Gln Glu Phe					
	1090		1095		1100
Arg His Leu Ser Asn Thr His Thr Asn His Glu Asp Lys Leu Gln Val					
1105		1110		1115	1120
Lys Asn Ile Ile Tyr His Ala Val Lys Asp Ala Val Gly Thr Leu Lys					
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Ala His Glu Ser Lys Leu Ala Arg Ser					
	1140		1145		

<210> 4595

<211> 935

<212> DNA

<213> Homo sapiens

<400> 4595

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 120
 actcatttgc cccgcaggta gatcttgggg gtctgccagc cttcgggggc ttccttttagc
 180
 cccgccttca gccagatgcg cctcaggtct ttctcgaact tgatctgctt gcgtctcagg
 240
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 300
 tgggtggttca tcttcgcccg gcggatcttc agcacgtttt tgactgaat ttgaggcgca
 360
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 420
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 480
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 720
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 780
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<210> 4596

<211> 169
 <212> PRT
 <213> Homo sapiens

<400> 4596

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Phe Leu Gly Thr Ser Ile Ser Ser Ser Ser Trp Ala Pro Leu Arg
          35           40           45
Gly Arg Glu Ala Ala Leu Pro Gly Pro Ala Gly Asp Xaa Ala Val Lys
          50           55           60
Gly Pro Ala Asp Pro Ala Ala Gln His Ser Arg Asp Gly Gln Gly Gly
65           70           75           80
Trp Pro Pro Ala Gln Gly Thr Ala Ser Thr Ala Gly Lys Ser Gly Ala
          85           90           95
Pro Gly Ala Trp Ser Val Gly Gly Ala Thr Gly Pro Arg Gly Ala Lys
          100          105          110
Gly Pro Arg Thr Gly Arg Pro Ala Pro Ser Pro Gly Ser Pro Pro Arg
          115          120          125
Glu Ser Arg Cys Leu Ala Pro Gly Pro Ser Arg Leu Asp Pro Gly Pro
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Ala Xaa Ala Ala Ala Pro Gly Ala Leu Arg Pro Pro Ala Asp Pro Ser
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Gln Ala Arg Pro Arg Arg Gly Ser Asn
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<210> 4597
 <211> 515
 <212> DNA
 <213> Homo sapiens

<400> 4597

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120
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240
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360
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<210> 4598

<211> 135
 <212> PRT
 <213> Homo sapiens

<400> 4598
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 Pro Gly Pro Trp Gly Val Gly Arg Gly Thr Cys Leu Thr Ala Gln Leu
 35 40 45
 Leu Leu Ser Ala Pro Phe Cys Leu Leu Pro Ala Leu Ser Gln Ala Val
 50 55 60
 Ser Pro Arg Asn Ser Leu Arg Asn Ile Leu Thr Leu Asn Ser Thr Ala
 65 70 75 80
 Glu Pro Ser Ser Trp Glu Ser Arg Glu Arg Pro Leu Gln Ser Arg Asn
 85 90 95
 Val Tyr Ser Ser Ala Ser Phe Ser Glu His Leu Asp Gly Gly Cys Ser
 100 105 110
 Pro Leu Val Leu Gln Ser Leu Ala Arg Arg Ile Ser Ser Thr Trp Leu
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 Val Asp Gln Ser Leu Arg Glu
 130 135

<210> 4599
 <211> 2314
 <212> DNA
 <213> Homo sapiens

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 120
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 240
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 420
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2220
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2314

<210> 4600
 <211> 228
 <212> PRT
 <213> Homo sapiens

<400> 4600
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 35 40 45
 Phe Arg Met Glu Ser Gly Ile Glu Pro Ser Val Asp Leu Glu Thr Leu
 50 55 60
 Asp Glu Arg Ile Lys Ile Arg Glu Met Ile Leu Lys Gly Gln Ile Gln
 65 70 75 80
 Glu Ala Ile Ala Leu Ile Asn Ser Leu His Pro Glu Leu Leu Asp Thr
 85 90 95
 Asn Arg Tyr Leu Tyr Phe His Leu Gln Gln Gln His Leu Ile Glu Leu
 100 105 110
 Ile Arg Gln Arg Glu Thr Glu Ala Ala Leu Glu Phe Ala Gln Thr Gln
 115 120 125
 Leu Ala Glu Gln Gly Glu Glu Ser Arg Glu Cys Leu Thr Glu Met Glu
 130 135 140
 Arg Thr Leu Ala Leu Leu Ala Phe Asp Ser Pro Glu Glu Ser Pro Phe
 145 150 155 160
 Gly Asp Leu Leu His Thr Met Gln Arg Gln Lys Val Trp Ser Glu Val
 165 170 175
 Asn Gln Ala Val Leu Asp Tyr Glu Asn Arg Glu Ser Thr Pro Lys Leu
 180 185 190
 Ala Lys Leu Leu Lys Leu Leu Trp Ala Gln Asn Glu Leu Asp Gln
 195 200 205
 Lys Lys Val Lys Tyr Pro Lys Met Thr Asp Leu Ser Lys Gly Val Ile
 210 215 220
 Glu Glu Pro Lys
 225

<210> 4601
 <211> 916
 <212> DNA
 <213> Homo sapiens

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 180
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 240
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 300

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 360
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 420
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 480
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 660
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 720
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 780
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 900
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 916

<210> 4602

<211> 305

<212> PRT

<213> Homo sapiens

<400> 4602

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		20						25					30		
Ala	Val	Arg	Ser	Tyr	Tyr	Glu	Val	Phe	Leu	Lys	Ser	Asp	Arg	Val	Ala
		35					40					45			
Arg	Met	Val	Gln	Ser	Gly	Gly	Cys	Ser	Ala	Asn	Asp	Phe	Arg	Glu	Val
	50					55					60				
Phe	Lys	Lys	Asn	Ile	Glu	Lys	Arg	Val	Arg	Ser	Leu	Pro	Glu	Ile	Asp
65				70						75				80	
Gly	Leu	Ser	Lys	Glu	Thr	Val	Leu	Ser	Ser	Trp	Ile	Ala	Lys	Tyr	Asp
			85					90						95	
Ala	Ile	Tyr	Arg	Gly	Glu	Glu	Asp	Leu	Cys	Lys	Gln	Pro	Asn	Arg	Met
			100					105					110		
Ala	Leu	Ser	Ala	Val	Ser	Glu	Leu	Ile	Leu	Ser	Lys	Glu	Gln	Leu	Tyr
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Glu	Met	Phe	Gln	Gln	Ile	Leu	Gly	Ile	Lys	Lys	Leu	Glu	His	Gln	Leu
	130						135				140				
Leu	Tyr	Asn	Ala	Cys	Gln	Leu	Asp	Asn	Ala	Asp	Glu	Gln	Ala	Ala	Gln
145				150						155				160	
Ile	Arg	Arg	Glu	Leu	Asp	Gly	Arg	Leu	Gln	Leu	Ala	Asp	Lys	Met	Ala
			165					170						175	
Lys	Glu	Arg	Lys	Phe	Pro	Lys	Phe	Ile	Ala	Lys	Asp	Met	Glu	Asn	Met
			180					185					190		
Tyr	Ile	Glu	Glu	Leu	Arg	Ser	Ser	Val	Asn	Leu	Leu	Met	Ala	Asn	Leu

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210		215		220
Leu Lys Arg Ser Gln Asn Ser Ala Phe Leu Asp Ile Gly Asp Glu Asn				
225		230		235
Glu Ile Gln Leu Ser Lys Ser Asp Val Val Leu Ser Phe Thr Leu Glu				
	245		250	255
Ile Val Ile Met Glu Val Gln Gly Leu Lys Ser Val Ala Pro Asn Arg				
	260		265	270
Ile Val Tyr Cys Thr Met Glu Val Glu Gly Glu Lys Leu Gln Thr Asp				
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Pro				
305				

<210> 4603

<211> 2090

<212> DNA

<213> Homo sapiens

<400> 4603

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240
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<210> 4604

<211> 666

<212> PRT

<213> Homo sapiens

<400> 4604

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<210> 4605

<211> 2998

<212> DNA

<213> Homo sapiens

<400> 4605

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<211> 584

<212> PRT

<213> Homo sapiens

<400> 4606

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			20					25					30	
Trp	Ser	Leu	Pro	Asp	Gly	Ser	Leu	Val	Asn	Ser	Phe	Met	Gln	Ser
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Asp	Ser	Gly	Gly	Arg	Thr	Lys	Arg	Tyr	Val	Val	Phe	Asn	Asn	Gly
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			85						90				95	
Val	Val	Thr	Ala	Pro	Ala	Thr	Ile	Arg	Asn	Lys	Thr	Cys	Leu	Ala
			100					105					110	
Gln	Val	Pro	Tyr	Gly	Asp	Val	Val	Thr	Val	Ala	Cys	Glu	Ala	Lys
			115					120				125		
Glu	Pro	Met	Pro	Lys	Val	Thr	Trp	Leu	Ser	Pro	Thr	Asn	Lys	Val
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Pro	Thr	Ser	Ser	Glu	Lys	Tyr	Gln	Ile	Tyr	Gln	Asp	Gly	Thr	Leu
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			180					185					190	
Val	Gln	Pro	Pro	Lys	Ile	Asn	Gly	Asn	Pro	Asn	Pro	Ile	Thr	Thr
			195				200					205		
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 Ser Glu Lys Ile Thr Ala Met Ala Gly His Thr Ile Ser Leu Asn Cys
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 515 520 525
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 530 535 540
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<211> 456

<212> DNA

<213> Homo sapiens

<400> 4607

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			20					25				30			
Phe	Gln	Met	Thr	Gln	Glu	Val	Val	Cys	Asp	Glu	Cys	Pro	Asn	Val	Lys
			35				40					45			
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<210> 4609

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<400> 4609

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<211> 250

<212> PRT

<213> Homo sapiens

<400> 4610

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				20				25					30		
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				85					90					95	
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<213> Homo sapiens

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<210> 4612

<211> 532

<212> PRT

<213> Homo sapiens

<400> 4612

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		20						25					30		
Ala	Ala	Ala	Ala	Ile	Ala	Val	Ala	Ala	Ala	Glu	Glu	Glu	Arg	Arg	Leu
		35					40						45		
Arg	Gln	Arg	Asn	Arg	Leu	Arg	Leu	Glu	Glu	Asp	Lys	Pro	Ala	Val	Glu
		50				55					60				
Arg	Cys	Leu	Glu	Glu	Leu	Val	Phe	Gly	Asp	Val	Glu	Asn	Asp	Glu	Asp
65					70					75				80	
Ala	Leu	Leu	Arg	Arg	Leu	Arg	Gly	Pro	Arg	Val	Gln	Glu	His	Glu	Asp
			85						90					95	
Ser	Gly	Asp	Ser	Glu	Val	Glu	Asn	Glu	Ala	Lys	Gly	Asn	Phe	Pro	Pro
		100						105					110		
Gln	Lys	Lys	Pro	Val	Trp	Val	Asp	Glu	Glu	Asp	Glu	Asp	Glu	Glu	Met
		115					120					125			
Val	Asp	Met	Met	Asn	Asn	Arg	Phe	Arg	Lys	Asp	Met	Met	Lys	Asn	Ala
		130				135					140				
Ser	Glu	Ser	Lys	Leu	Ser	Lys	Asp	Asn	Leu	Lys	Lys	Arg	Leu	Lys	Glu
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<210> 4613
<211> 454
<212> DNA
<213> Homo sapiens
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<210> 4614

<211> 117

<212> PRT

<213> Homo sapiens

<400> 4614

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Pro	Val	Thr	Cys	Leu	Ala	Pro	Thr	Ser	Asn	Glu	Phe	Thr	Arg	Gly	Asn
			20					25					30		
Glu	Phe	Thr	Asn	Gly	Asn	Leu	Thr	Met	Ser	Asn	Glu	Phe	His	Cys	Lys
			35				40						45		
Asp	Phe	Leu	Ile	Phe	Thr	Thr	Gln	Ile	Leu	Thr	Ile	Leu	Gln	Leu	Arg
	50					55					60				
Ser	Leu	Asn	Ile	Ile	Tyr	Asn	Lys	Gln	Asn	Leu	Val	Asn	Leu	Gln	Lys
65					70				75					80	
Ser	Asn	Ala	Leu	Lys	Lys	His	Gln	Ser	Leu	Cys	Met	Cys	Arg	Thr	Asp
				85					90					95	
Pro	Ala	Pro	Gln	Gly	Asn	Thr	Ala	Gly	Thr	Val	Pro	Arg	Thr	Leu	Thr
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Ser	Val	Ser	Leu	Leu											
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<210> 4615

<211> 1350

<212> DNA

<213> Homo sapiens

<400> 4615

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 180
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 240

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 1350

<210> 4616

<211> 188

<212> PRT

<213> Homo sapiens

<400> 4616

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 20 25 30
 Arg Lys Asp Met Asp Glu Val Glu Lys Ser Lys Asp Val Ile Asn
 35 40 45
 Phe Thr Ala Glu Lys Leu Ser Val Asp Glu Val Ser Gln Leu Val Ile
 50 55 60
 Ser Pro Leu Cys Gly Ala Ile Ser Leu Phe Val Gly Thr Thr Arg Asn

65		70		75		80									
Asn	Phe	Glu	Gly	Lys	Lys	Val	Ile	Ser	Leu	Glu	Tyr	Glu	Ala	Tyr	Leu
				85				90						95	
Pro	Met	Ala	Glu	Asn	Glu	Val	Arg	Lys	Ile	Cys	Ser	Asp	Ile	Arg	Gln
			100					105						110	
Lys	Trp	Pro	Val	Lys	His	Ile	Ala	Val	Phe	His	Leu	Leu	Gly	Leu	Val
			115				120						125		
Pro	Val	Ser	Glu	Ala	Ser	Thr	Val	Ile	Ala	Val	Ser	Ser	Ala	His	Arg
			130				135						140		
Ala	Ala	Ser	Leu	Glu	Ala	Val	Ser	Tyr	Ala	Ile	Asp	Ser	Leu	Lys	Ala
			145				150				155			160	
Lys	Val	Pro	Ile	Trp	Lys	Lys	Glu	Ile	Tyr	Glu	Glu	Ser	Ser	Thr	Trp
				165				170						175	
Lys	Gly	Asn	Lys	Glu	Cys	Phe	Trp	Ala	Ser	Asn	Ser				
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<210> 4617

<211> 2266

<212> DNA

<213> Homo sapiens

<400> 4617

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 180
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 240
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 300
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<210> 4618

<211> 197

<212> PRT

<213> Homo sapiens

<400> 4618

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35					40					45					
Val	Ser	Gly	Tyr	Leu	Asn	Leu	Leu	Ala	Asn	Thr	Ile	Asp	Asn	Phe	Thr
50					55					60					
His	Gly	Leu	Ala	Val	Ala	Ala	Ser	Phe	Leu	Val	Ser	Lys	Lys	Ile	Gly
65					70					75					80
Leu	Leu	Thr	Thr	Met	Ala	Ile	Leu	Leu	His	Glu	Ile	Pro	His	Glu	Val
85					90					95					
Gly	Asp	Phe	Ala	Ile	Leu	Leu	Arg	Ala	Gly	Phe	Asp	Arg	Trp	Ser	Ala
100					105					110					
Ala	Lys	Leu	Gln	Leu	Ser	Thr	Ala	Leu	Gly	Gly	Leu	Leu	Gly	Ala	Gly
115					120					125					
Phe	Ala	Ile	Cys	Thr	Gln	Ser	Pro	Lys	Gly	Val	Glu	Glu	Thr	Ala	Ala
130					135					140					
Trp	Val	Leu	Pro	Phe	Thr	Ser	Gly	Gly	Phe	Leu	Tyr	Ile	Ala	Leu	Val
145					150					155					160
Asn	Val	Leu	Pro	Asp	Leu	Leu	Glu	Glu	Glu	Asp	Pro	Trp	Arg	Ser	Leu
165					170					175					
Gln	Gln	Leu	Leu	Leu	Cys	Ala	Gly	Ile	Val	Val	Met	Val	Leu	Phe	
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Ser	Leu	Phe	Val	Asp											
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<210> 4619
<211> 539
<212> DNA
<213> Homo sapiens
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539
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<210> 4620
<211> 103
<212> PRT
<213> Homo sapiens
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<400> 4620

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 Leu Gln Ala Arg Pro Asn Pro Arg Phe Pro Gly Arg Cys Thr Pro Gly
 35 40 45
 Trp Glu Lys Leu Thr Asn Glu Ser Ser Trp Gln Pro Pro Gln Ala Pro
 50 55 60
 Pro Asp Trp Ala Ser Trp Leu Cys Cys Gln Asp Tyr Asp Pro Leu Pro
 65 70 75 80
 Glu Ser Arg Arg Ser Pro Gln Ala Glu Arg Tyr Arg His Leu Cys Pro
 85 90 95
 Tyr Leu Asn Gln Glu Val Pro
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<210> 4621

<211> 2588

<212> DNA

<213> Homo sapiens

<400> 4621

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2460
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2588

<210> 4622

<211> 403

<212> PRT

<213> Homo sapiens

<400> 4622

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 20          25          30
Ile Gly Lys Lys Gly Glu Thr Val Lys Arg Ile Arg Glu Gln Ser Ser
 35          40          45
Ala Arg Ile Thr Ile Ser Glu Gly Ser Cys Pro Glu Arg Ile Thr Thr
 50          55          60
Ile Thr Gly Ser Thr Ala Ala Val Phe His Ala Val Ser Met Ile Ala
 65          70          75          80
Phe Lys Leu Asp Glu Asp Leu Cys Ala Ala Pro Ala Asn Gly Gly Asn
 85          90          95
Val Ser Arg Pro Pro Val Thr Leu Arg Leu Val Ile Pro Ala Ser Gln
 100         105         110
Cys Gly Ser Leu Ile Gly Lys Ala Gly Thr Lys Ile Lys Glu Ile Arg
 115         120         125
Glu Thr Thr Gly Ala Gln Val Gln Val Ala Gly Asp Leu Leu Pro Asn
 130         135         140
Ser Thr Glu Arg Ala Val Thr Val Ser Gly Val Pro Asp Ala Ile Ile
 145         150         155         160
Leu Cys Val Arg Gln Ile Cys Ala Val Ile Leu Glu Ser Pro Pro Lys
 165         170         175
Gly Ala Thr Ile Pro Tyr His Pro Ser Leu Ser Leu Gly Thr Val Leu
 180         185         190
Leu Ser Ala Asn Gln Gly Phe Ser Val Gln Gly Gln Tyr Gly Ala Val
 195         200         205
Thr Pro Ala Glu Val Thr Lys Leu Gln Gln Leu Ser Ser His Ala Val
 210         215         220
Pro Phe Ala Thr Pro Ser Val Val Pro Gly Leu Asp Pro Gly Thr Gln
 225         230         235         240
Thr Ser Ser Gln Glu Phe Leu Val Pro Asn Asp Leu Ile Gly Cys Val
 245         250         255
Ile Gly Arg Gln Gly Ser Lys Ile Ser Glu Ile Arg Gln Met Ser Gly
 260         265         270
Ala His Ile Lys Ile Gly Asn Gln Ala Glu Gly Ala Gly Glu Arg His
 275         280         285
Val Thr Ile Thr Gly Ser Pro Val Ser Ile Ala Leu Ala Gln Tyr Leu
 290         295         300
Ile Thr Ala Cys Leu Glu Thr Ala Lys Ser Thr Ser Gly Gly Thr Pro
 305         310         315         320
Gly Ser Ala Pro Ala Asp Leu Pro Thr Pro Phe Ser Pro Pro Leu Thr
 325         330         335
Ala Leu Pro Thr Ala Pro Pro Gly Leu Leu Gly Thr Pro Tyr Ala Ile
 340         345         350
Ser Leu Ser Asn Phe Ile Gly Leu Lys Pro Val Pro Phe Leu Ala Leu

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	355		360		365	
Pro	Pro	Ala	Ser	Pro	Gly	Pro
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Lys	Met	Ala	Ala	Ala	Asn	Gly
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Ser	Pro	Tyr				

<210> 4623
 <211> 2220
 <212> DNA
 <213> Homo sapiens

<400> 4623
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 840
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 1200

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 1320
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<211> 189

<212> PRT

<213> Homo sapiens

<400> 4624

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			20					25					30		
Asp	Pro	Trp	Lys	Glu	Glu	Thr	Asp	Thr	Asp	Leu	Glu	Val	Val	Leu	Glu
		35					40					45			
Lys	Lys	Gly	Asn	Met	Asp	Glu	Ala	His	Ile	Asp	Gln	Val	Arg	Arg	Lys
		50				55					60				
Ala	Leu	Gln	Glu	Glu	Ile	Asp	Arg	Glu	Ser	Gly	Lys	Thr	Glu	Ala	Ser
65					70					75				80	
Glu	Thr	Arg	Lys	Trp	Thr	Gly	Thr	Gln	Phe	Gly	Gln	Trp	Asp	Thr	Ala
			85					90					95		
Gly	Phe	Glu	Asn	Glu	Asp	Gln	Lys	Leu	Lys	Phe	Leu	Arg	Leu	Met	Gly

100 105 110
 Gly Phe Lys Asn Leu Ser Pro Ser Phe Ser Arg Pro Ala Ser Thr Ile
 115 120 125
 Ala Arg Pro Asn Met Ala Leu Gly Lys Lys Ala Ala Asp Ser Leu Gln
 130 135 140
 Gln Asn Leu Gln Arg Asp Tyr Asp Arg Ala Met Ser Trp Lys Tyr Ser
 145 150 155 160
 Arg Gly Ala Gly Leu Gly Phe Ser Thr Ala Pro Asn Lys Ile Phe Tyr
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 Ile Asp Arg Asn Ala Ser Lys Ser Val Lys Leu Glu Asp
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<210> 4625

<211> 334

<212> DNA

<213> Homo sapiens

<400> 4625

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<210> 4626

<211> 111

<212> PRT

<213> Homo sapiens

<400> 4626

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 20 25 30
 Glu Gln Glu Tyr Lys Arg Lys Gln Leu Glu Glu Gln Arg Gln Ser Glu
 35 40 45
 Arg Leu Gln Arg Gln Leu Gln Gln Glu His Ala Tyr Leu Lys Ser Leu
 50 55 60
 Gln Gln Gln Gln Gln Gln Gln Gln Leu Gln Lys Gln Gln Gln Gln
 65 70 75 80
 Leu Leu Pro Gly Asp Arg Lys Pro Leu Tyr His Tyr Gly Arg Gly Met
 85 90 95
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<210> 4627

<211> 1736

<212> DNA

<213> Homo sapiens

<400> 4627

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240
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300
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360
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420
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480
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<210> 4628

<211> 469

<212> PRT

<213> Homo sapiens

<400> 4628

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			20				25						30		
Pro	Glu	Ala	Lys	Gln	Glu	Ile	Leu	Glu	Asn	Lys	Asp	Val	Val	Val	Gln
			35				40					45			
His	Val	His	Phe	Asp	Gly	Leu	Gly	Arg	Thr	Lys	Asp	Asp	Ile	Ile	Ile
			50			55					60				
Cys	Glu	Ile	Gly	Asp	Val	Phe	Lys	Ala	Lys	Asn	Leu	Ile	Glu	Val	Met
65					70					75				80	
Arg	Lys	Ser	His	Glu	Ala	Arg	Glu	Lys	Leu	Leu	Arg	Leu	Gly	Ile	Phe
				85					90					95	
Arg	Gln	Val	Asp	Val	Leu	Ile	Asp	Thr	Cys	Gln	Gly	Asp	Gly	Ala	Leu
			100					105					110		
Pro	Asn	Gly	Leu	Asp	Val	Thr	Phe	Glu	Val	Thr	Glu	Leu	Arg	Arg	Leu
			115				120					125			
Thr	Gly	Ser	Tyr	Asn	Thr	Met	Val	Gly	Asn	Asn	Glu	Gly	Ser	Met	Val
			130			135					140				
Leu	Gly	Leu	Lys	Leu	Pro	Asn	Leu	Leu	Gly	Arg	Ala	Glu	Lys	Val	Thr
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Phe	Gln	Phe	Ser	Tyr	Gly	Thr	Lys	Glu	Thr	Ser	Tyr	Gly	Leu	Ser	Phe
				165				170						175	
Phe	Lys	Pro	Arg	Pro	Gly	Asn	Phe	Glu	Arg	Asn	Phe	Ser	Val	Asn	Leu
			180					185					190		
Tyr	Lys	Val	Thr	Gly	Gln	Phe	Pro	Trp	Ser	Ser	Leu	Arg	Glu	Thr	Asp
			195				200					205			
Arg	Gly	Met	Ser	Ala	Glu	Tyr	Ser	Phe	Pro	Ile	Trp	Lys	Thr	Ser	His
			210				215				220				
Thr	Val	Lys	Trp	Glu	Gly	Val	Trp	Arg	Glu	Leu	Gly	Cys	Leu	Ser	Arg
225					230					235				240	
Thr	Ala	Ser	Phe	Ala	Val	Arg	Lys	Glu	Ser	Gly	His	Ser	Leu	Lys	Ser
				245				250						255	
Ser	Leu	Ser	His	Ala	Met	Val	Ile	Asp	Ser	Arg	Asn	Ser	Ser	Ile	Leu
			260					265					270		
Pro	Arg	Arg	Gly	Ala	Leu	Leu	Lys	Val	Asn	Gln	Glu	Leu	Ala	Gly	Tyr
			275				280					285			
Thr	Gly	Gly	Asp	Val	Ser	Phe	Ile	Lys	Glu	Asp	Phe	Glu	Leu	Gln	Leu
			290				295				300				
Asn	Lys	Gln	Leu	Ile	Phe	Asp	Ser	Val	Phe	Ser	Ala	Ser	Phe	Trp	Gly

305 310 315 320
 Gly Met Leu Val Pro Ile Gly Asp Lys Pro Ser Ser Ile Ala Asp Arg
 325 330 335
 Phe Tyr Leu Gly Gly Pro Thr Ser Val Arg Gly Phe Ser Met His Ser
 340 345 350
 Ile Gly Pro Gln Ser Glu Gly Asp Tyr Leu Gly Gly Glu Ala Tyr Trp
 355 360 365
 Ala Gly Gly Leu His Leu Tyr Thr Pro Leu Pro Phe Arg Pro Gly Gln
 370 375 380
 Gly Gly Phe Gly Glu Leu Phe Arg Thr His Phe Phe Leu Asn Ala Gly
 385 390 395 400
 Asn Leu Cys Asn Leu Asn Tyr Gly Glu Gly Pro Lys Ala His Ile Arg
 405 410 415
 Lys Leu Ala Glu Cys Ile Arg Trp Ser Tyr Gly Ala Gly Ile Val Leu
 420 425 430
 Arg Leu Gly Asn Ile Ala Arg Leu Glu Leu Asn Tyr Cys Val Pro Met
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<210> 4629

<211> 706

<212> DNA

<213> Homo sapiens

<400> 4629

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<210> 4630

<211> 140
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Ser Trp Ala Leu Arg Val Ser Val Phe Pro Gln Ile Gly Lys Met Arg
 50 55 60
 Gly Arg Gly Gly Tyr Trp Gly Gln Ala Ser Ala Gln Pro Trp Val Leu
 65 70 75 80
 Leu Glu Pro Gly Leu Glu Pro Glu Val Gly Arg Val Ser Lys Leu Ser
 85 90 95
 Ser Trp Ile Pro Ile Cys Arg Thr Ala Pro Arg Thr Arg Ser Gly Val
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 Arg Ala His Pro Leu Ala Arg Ile Leu Gly Ser Leu Gly His Lys Ala
 115 120 125
 Gly Gln Gly Thr Arg Asp Pro Pro Thr Gln Glu Thr
 130 135 140

<210> 4631
 <211> 2756
 <212> DNA
 <213> Homo sapiens

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<210> 4632

<211> 372

<212> PRT

<213> Homo sapiens

<400> 4632

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 20 25 30
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 35 40 45
 Asp Ile Val Thr Ile Ser Gln Ala Thr Pro Ser Ser Val Ser Arg Gly
 50 55 60
 Thr Ala Pro Ser Asp Asn Arg Val Thr Ser Phe Arg Asp Leu Ile His
 65 70 75 80
 Asp Gln Asp Glu Asp Glu Glu Glu Glu Glu Gly Gln Arg Ser Arg Phe
 85 90 95
 Tyr Ala Gly Gly Ser Glu Arg Ser Gly Gln Gln Ile Val Gly Pro Pro
 100 105 110
 Arg Lys Lys Ser Pro Asn Glu Leu Val Asp Asp Leu Phe Lys Gly Ala
 115 120 125
 Lys Glu His Gly Ala Val Ala Val Glu Arg Val Thr Lys Ser Pro Gly
 130 135 140
 Glu Thr Ser Lys Pro Arg Pro Phe Ala Gly Gly Gly Tyr Arg Leu Gly
 145 150 155 160
 Ala Ala Pro Glu Glu Glu Ser Ala Tyr Val Ala Gly Glu Lys Arg Gln
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 His Ser Ser Gln Asp Val His Val Val Leu Lys Leu Trp Lys Ser Gly
 180 185 190
 Phe Ser Leu Asp Asn Gly Glu Leu Arg Ser Tyr Gln Asp Pro Ser Asn
 195 200 205
 Ala Gln Phe Leu Glu Ser Ile Arg Arg Gly Glu Val Pro Ala Glu Leu
 210 215 220
 Arg Arg Leu Ala His Gly Gly Gln Val Asn Leu Asp Met Glu Asp His
 225 230 235 240
 Arg Asp Glu Asp Phe Val Lys Pro Lys Gly Ala Phe Lys Ala Phe Thr
 245 250 255
 Gly Glu Gly Gln Lys Leu Gly Ser Thr Ala Pro Gln Val Leu Ser Thr

	260		265		270
Ser Ser Pro	Ala Gln Gln Ala Glu Asn Glu Ala Lys Ala Ser Ser Ser				
	275		280		285
Ile Leu Ile Asp	Glu Ser Glu Pro Thr Thr Asn Ile Gln Ile Arg Leu				
	290		295		300
Ala Asp Gly Gly Arg	Leu Val Gln Lys Phe Asn His Ser His Arg Ile				
305		310		315	320
Ser Asp Ile Arg Leu	Phe Ile Val Asp Ala Arg Pro Ala Met Ala Ala				
	325		330		335
Thr Ser Phe Ile Leu	Met Thr Thr Phe Pro Asn Lys Glu Leu Ala Asp				
	340		345		350
Glu Ser Gln Thr Leu	Lys Glu Ala Asn Leu Leu Asn Ala Val Ile Val				
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Gln Arg Leu Thr					
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<210> 4633

<211> 873

<212> DNA

<213> Homo sapiens

<400> 4633

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720
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780
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<210> 4634

<211> 242

<212> PRT

<213> Homo sapiens

<400> 4634

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 Ala Asn Leu Gly Lys Phe Leu Glu Leu Arg Ser His Gln Ser Arg
 35 40 45
 Pro Ala Lys Cys Leu Thr Ile Met Trp Ala Leu Gly Gln Ala Gly Phe
 50 55 60
 Ala Asn Leu Thr Glu Gly Leu Lys Val Trp Leu Gly Ile Met Leu Pro
 65 70 75 80
 Val Leu Gly Ile Lys Ser Leu Ser Pro Phe Ala Ile Thr Tyr Leu Asp
 85 90 95
 Arg Leu Leu Leu Met His Pro Asn Leu Thr Lys Gly Phe Gly Met Ile
 100 105 110
 Gly Pro Lys Asp Phe Phe Pro Leu Leu Asp Phe Ala Tyr Met Pro Asn
 115 120 125
 Asn Ser Leu Thr Pro Ser Leu Gln Glu Gln Leu Cys Gln Leu Tyr Pro
 130 135 140
 Arg Leu Lys Val Leu Ala Phe Gly Ala Lys Pro Asp Ser Thr Leu His
 145 150 155 160
 Thr Tyr Phe Pro Ser Phe Leu Ser Arg Ala Thr Pro Ser Cys Pro Pro
 165 170 175
 Glu Met Lys Lys Glu Leu Leu Ser Ser Leu Thr Glu Cys Leu Thr Val
 180 185 190
 Asp Pro Leu Ser Ala Ser Val Trp Arg Gln Leu Tyr Pro Lys His Leu
 195 200 205
 Ser Gln Ser Ser Leu Leu Leu Glu His Leu Leu Ser Ser Trp Glu Gln
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 Ile Pro Lys Lys Val Gln Lys Ser Leu Gln Glu Thr Ile Gln Ser Leu
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 Lys Leu

<210> 4635

<211> 384

<212> DNA

<213> Homo sapiens

<400> 4635

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 180
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 240
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gcctaccctg gccacagtca gttcccatc tcattttcta agaattttat cacaaaacag

360

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384

<210> 4636

<211> 108

<212> PRT

<213> Homo sapiens

<400> 4636

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1

5

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15

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20

25

30

Lys Glu Val Lys Trp Gly Pro Arg Arg Lys Ala Gly Gly Val Trp Ala

35

40

45

Glu Pro Ala Ser Gly Gly Leu Pro Pro Pro Glu Asp Glu Phe Cys Ser

50

55

60

Pro Gly Val Cys Thr Leu Thr Leu Ala His Ser Leu Thr His Lys Thr

65

70

75

80

Leu Thr Leu Cys Phe Phe Trp Gly Glu Gly Gly His Trp Gln Lys Arg

85

90

95

Leu Pro Trp Pro Gln Ser Val Pro Ile Leu Ile Phe

100

105

<210> 4637

<211> 2162

<212> DNA

<213> Homo sapiens

<400> 4637

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180

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240

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360

agctactcca gcaacatctt gtccataagg ctgaaccggc aaaggctgct ggtttgccta

420

gaagagtcca tttatattca caacattaaa gacatgaagc tgttgaagac cctcctggat

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540

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660

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<210> 4638

<211> 446

<212> PRT

<213> Homo sapiens

<400> 4638

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Thr Lys Ala Gly Tyr Lys Leu Phe Ser Leu Ser Ser Val Glu Gln Leu
      35          40          45
Asp Gln Val His Gly Ser Asn Glu Ile Pro Asp Val Tyr Ile Val Glu
      50          55          60
Arg Leu Phe Ser Ser Ser Leu Val Val Val Val Ser His Thr Lys Pro
      65          70          75          80
Arg Gln Met Asn Val Tyr His Phe Lys Lys Gly Thr Glu Ile Cys Asn
      85          90          95
Tyr Ser Tyr Ser Ser Asn Ile Leu Ser Ile Arg Leu Asn Arg Gln Arg
      100          105          110
Leu Leu Val Cys Leu Glu Glu Ser Ile Tyr Ile His Asn Ile Lys Asp
      115          120          125
Met Lys Leu Leu Lys Thr Leu Leu Asp Ile Pro Ala Asn Pro Thr Gly
      130          135          140
Leu Cys Ala Leu Ser Ile Asn His Ser Asn Ser Tyr Leu Ala Tyr Pro
      145          150          155          160
Gly Ser Leu Thr Ser Gly Glu Ile Val Leu Tyr Asp Gly Asn Ser Leu
      165          170          175
Lys Thr Val Cys Thr Ile Ala Ala His Glu Gly Thr Leu Ala Ala Ile
      180          185          190
Thr Phe Asn Ala Ser Gly Ser Lys Leu Ala Ser Ala Ser Glu Lys Gly
      195          200          205
Thr Val Ile Arg Val Phe Ser Val Pro Asp Gly Gln Lys Leu Tyr Glu
      210          215          220
Phe Arg Arg Gly Met Lys Arg Tyr Val Thr Ile Ser Ser Leu Val Phe
      225          230          235          240
Ser Met Asp Ser Gln Phe Leu Cys Ala Ser Ser Asn Thr Glu Thr Val
      245          250          255
His Ile Phe Lys Leu Glu Gln Val Thr Asn Ser Arg Pro Glu Glu Pro
      260          265          270
Ser Thr Trp Ser Gly Tyr Met Gly Lys Met Phe Met Ala Ala Thr Asn
      275          280          285
Tyr Leu Pro Thr Gln Val Ser Asp Met Met His Gln Asp Arg Ala Phe
      290          295          300
Ala Thr Ala Arg Leu Asn Phe Ser Gly Gln Arg Asn Ile Cys Thr Leu
      305          310          315          320
Ser Thr Ile Gln Lys Leu Pro Arg Leu Leu Val Ala Ser Ser Ser Gly
      325          330          335
His Leu Tyr Met Tyr Asn Leu Asp Pro Gln Asp Gly Gly Glu Cys Val
      340          345          350
Leu Ile Lys Thr His Ser Leu Leu Gly Ser Gly Thr Thr Glu Glu Asn
      355          360          365
Lys Glu Asn Asp Leu Arg Pro Ser Leu Pro Gln Ser Tyr Ala Ala Thr
      370          375          380
Val Ala Arg Pro Ser Ala Ser Ser Ala Ser Thr Val Pro Gly Tyr Ser

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385		390		395		400
Glu Asp Gly Gly	Ala Leu Arg Gly Glu Val Ile Pro Glu His Glu Phe					
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Ala Thr Gly Pro Val Cys Leu Asp Asp Glu Asn Glu Phe Pro Pro Ile						
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Ile Leu Cys Arg Gly Asn Gln Lys Gly Lys Thr Lys Gln Ser						
	435		440		445	

<210> 4639
 <211> 1007
 <212> DNA
 <213> Homo sapiens

<400> 4639
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 180
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<210> 4640
 <211> 71
 <212> PRT
 <213> Homo sapiens

<400> 4640

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 20 25 30
 Leu Arg Arg Ser Phe Ala Leu Val Ala Gln Ala Arg Val Gln Trp Arg
 35 40 45
 Asp Leu Ser Ser Leu Gln Pro Pro Pro Pro Arg Leu Lys Arg Phe Ser
 50 55 60
 His Leu Ser Leu Pro Ser Ser
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<210> 4641

<211> 1873

<212> DNA

<213> Homo sapiens

<400> 4641

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 420
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<210> 4642

<211> 306

<212> PRT

<213> Homo sapiens

<400> 4642

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			20					25					30		
Gln	Trp	Asn	Tyr	Cys	Thr	Leu	Ser	Gln	Glu	Ile	Leu	Arg	Arg	Pro	Ile
		35					40					45			
Val	Ala	Cys	Glu	Leu	Gly	Arg	Leu	Tyr	Asn	Lys	Asp	Ala	Val	Ile	Glu
		50				55					60				
Phe	Leu	Leu	Asp	Lys	Ser	Ala	Glu	Lys	Ala	Leu	Gly	Lys	Ala	Ala	Ser
65					70				75						80
His	Ile	Lys	Ser	Ile	Lys	Asn	Val	Thr	Glu	Leu	Lys	Leu	Ser	Asp	Asn
			85					90					95		
Pro	Ala	Trp	Glu	Gly	Asp	Lys	Gly	Asn	Thr	Lys	Gly	Asp	Lys	His	Asp
		100						105					110		
Asp	Leu	Gln	Arg	Ala	Arg	Phe	Ile	Cys	Pro	Val	Val	Gly	Leu	Glu	Met
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Asn	Gly	Arg	His	Arg	Phe	Cys	Phe	Leu	Arg	Cys	Cys	Gly	Cys	Val	Phe
	130					135					140				
Ser	Glu	Arg	Ala	Leu	Lys	Glu	Ile	Lys	Ala	Glu	Val	Cys	His	Thr	Cys

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 165 170 175
 Glu Asp Val Asp Val Leu Lys Thr Arg Met Glu Glu Arg Arg Leu Arg
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 Ala Lys Leu Glu Lys Lys Thr Lys Lys Pro Lys Ala Ala Glu Ser Val
 195 200 205
 Ser Lys Pro Asp Val Ser Glu Glu Ala Pro Gly Pro Ser Lys Val Lys
 210 215 220
 Thr Gly Lys Pro Glu Glu Ala Ser Leu Asp Ser Arg Glu Lys Lys Thr
 225 230 235 240
 Asn Leu Ala Pro Lys Ser Thr Ala Met Asn Glu Ser Ser Ser Gly Lys
 245 250 255
 Ala Gly Lys Pro Pro Cys Gly Ala Thr Lys Arg Ser Ile Ala Asp Ser
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 Glu Glu Ser Glu Ala Tyr Lys Ser Leu Phe Thr Thr His Ser Ser Ala
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<210> 4643

<211> 1125

<212> DNA

<213> Homo sapiens

<400> 4643

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<210> 4644

<211> 270

<212> PRT

<213> Homo sapiens

<400> 4644

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		20						25					30		
Gly	Ala	Arg	Val	Val	Ile	Cys	Asp	Lys	Asp	Glu	Ser	Gly	Gly	Arg	Ala
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Leu	Glu	Gln	Glu	Leu	Pro	Gly	Ala	Val	Phe	Ile	Leu	Cys	Asp	Val	Thr
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Gln	Glu	Asp	Asp	Met	Lys	Thr	Leu	Val	Ser	Glu	Thr	Ile	Arg	Arg	Phe
65					70				75					80	
Gly	Arg	Leu	Asp	Cys	Val	Val	Asn	Asn	Ala	Gly	His	His	Pro	Pro	Pro
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Val	Thr	Ala	Met	Thr	Lys	Ala	Leu	Ala	Leu	Asp	Glu	Ser	Pro	Tyr	Gly
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Val	Arg	Val	Asn	Cys	Ile	Ser	Pro	Gly	Asn	Ile	Trp	Thr	Pro	Leu	Trp
		180						185					190		
Glu	Glu	Leu	Ala	Ala	Leu	Met	Pro	Asp	Pro	Arg	Ala	Thr	Ile	Arg	Glu
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Gly	Met	Leu	Ala	Gln	Pro	Leu	Gly	Arg	Met	Gly	Gln	Pro	Ala	Glu	Val
	210					215					220				
Gly	Ala	Ala	Ala	Val	Phe	Leu	Ala	Ser	Glu	Ala	Asn	Phe	Cys	Thr	Gly
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Ile	Glu	Leu	Leu	Val	Thr	Gly	Gly	Ala	Glu	Leu	Gly	Tyr	Gly	Cys	Lys
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<210> 4645

<211> 1725

<212> DNA

<213> Homo sapiens

<400> 4645

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<210> 4646

<211> 358

<212> PRT

<213> Homo sapiens

<400> 4646

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 Pro Arg Ser Ala Ser Ile Lys Asp Ile Lys Lys Ala Tyr Arg Lys Leu
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 Ala Leu Gln Leu His Pro Asp Arg Asn Pro Asp Asp Pro Gln Ala Gln
 50 55 60
 Glu Lys Phe Gln Asp Leu Gly Ala Ala Tyr Glu Val Leu Ser Asp Ser
 65 70 75 80
 Glu Lys Arg Lys Gln Tyr Asp Thr Tyr Gly Glu Glu Gly Leu Lys Asp
 85 90 95
 Gly His Gln Ser Ser His Gly Asp Ile Phe Ser His Phe Phe Gly Asp
 100 105 110
 Phe Gly Phe Met Phe Gly Gly Thr Pro Arg Gln Gln Asp Arg Asn Ile
 115 120 125
 Pro Arg Gly Ser Asp Ile Ile Val Asp Leu Glu Val Thr Leu Glu Glu
 130 135 140
 Val Tyr Ala Gly Asn Phe Val Glu Val Val Arg Asn Lys Pro Val Ala
 145 150 155 160
 Arg Gln Ala Pro Gly Lys Arg Lys Cys Asn Cys Arg Gln Glu Met Arg
 165 170 175
 Thr Thr Gln Leu Gly Pro Gly Arg Phe Gln Met Thr Gln Glu Val Val
 180 185 190
 Cys Asp Glu Cys Pro Asn Val Lys Leu Val Asn Glu Glu Arg Thr Leu
 195 200 205
 Glu Val Glu Ile Glu Pro Gly Val Arg Asp Gly Met Glu Tyr Pro Phe
 210 215 220
 Ile Gly Glu Gly Glu Pro His Val Asp Gly Glu Pro Gly Asp Leu Arg
 225 230 235 240
 Phe Arg Ile Lys Val Val Lys His Pro Ile Phe Glu Arg Arg Gly Asp
 245 250 255
 Asp Leu Tyr Thr Asn Val Thr Ile Ser Leu Val Glu Ser Leu Val Gly
 260 265 270
 Phe Glu Met Asp Ile Thr His Leu Asp Gly His Lys Val His Ile Ser
 275 280 285
 Arg Asp Lys Ile Thr Arg Pro Gly Ala Lys Leu Trp Lys Lys Gly Glu

290		295		300
Gly Leu Pro Asn Phe Asp Asn Asn Ile Lys Gly Ser Leu Ile Ile				
305		310		315
Thr Phe Asp Val Asp Phe Pro Lys Glu Gln Leu Thr Glu Glu Ala Arg				320
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<210> 4647

<211> 791

<212> DNA

<213> Homo sapiens

<400> 4647

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<210> 4648

<211> 188

<212> PRT

<213> Homo sapiens

<400> 4648

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<210> 4649
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<212> DNA
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780

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<210> 4650

<211> 965

<212> PRT

<213> Homo sapiens

<400> 4650

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Glu	Val	Ala	Val	Lys	Val	Cys	Leu	Leu	Asn	Phe	Met	Ile	Thr	Pro	Leu
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Gly	Leu	Gln	Asp	Gln	Leu	Leu	Gly	Ile	Val	Ala	Ala	Lys	Glu	Lys	Pro
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Glu	Leu	Glu	Glu	Lys	Lys	Asn	Gln	Leu	Ile	Val	Glu	Ser	Ala	Lys	Asn
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Lys	Lys	His	Leu	Lys	Glu	Ile	Glu	Asp	Lys	Ile	Leu	Glu	Val	Leu	Ser
			85						90					95	
Met	Ser	Lys	Gly	Asn	Ile	Leu	Glu	Asp	Glu	Thr	Ala	Ile	Lys	Val	Leu
			100						105				110		
Ser	Ser	Ser	Lys	Val	Leu	Ser	Glu	Glu	Ile	Ser	Glu	Lys	Gln	Lys	Val
			115					120					125		
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	165	170
Leu Tyr Met His Ser Leu Thr His Ser Thr Lys Ser Glu Glu Leu Asn		175
	180	185
Leu Arg Ile Lys Tyr Ile Ile Asp His Phe Thr Leu Ser Ile Tyr Asn		190
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Asn Val Cys Arg Ser Leu Phe Glu Lys Asp Lys Leu Phe Ser Leu		205
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Leu Leu Thr Ile Gly Ile Met Lys Gln Lys Lys Glu Ile Thr Glu Glu		220
225	230	235
Val Trp Tyr Phe Leu Leu Thr Gly Gly Ile Ala Leu Asp Asn Pro Tyr		240
	245	250
Pro Asn Pro Ala Pro Gln Trp Leu Ser Glu Lys Ala Trp Ala Glu Ile		255
	260	265
Val Arg Ala Ser Ala Leu Pro Lys Leu His Gly Leu Met Glu His Leu		270
	275	280
Glu Gln Asn Leu Gly Glu Trp Lys Leu Ile Tyr Asp Ser Ala Trp Pro		285
	290	295
His Glu Glu Gln Leu Pro Gly Ser Trp Lys Phe Ser Gln Gly Leu Glu		300
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Lys Met Val Ile Leu Arg Cys Leu Arg Pro Asp Lys Met Val Pro Ala		320
	325	330
Val Arg Glu Phe Ile Ala Glu His Met Gly Lys Leu Tyr Ile Glu Ala		335
	340	345
Pro Thr Phe Asp Leu Gln Gly Ser Tyr Asn Asp Ser Ser Cys Cys Ala		350
	355	360
Pro Leu Ile Phe Val Leu Ser Pro Ser Ala Asp Pro Met Ala Gly Leu		365
	370	375
Leu Lys Phe Ala Asp Asp Leu Gly Met Gly Gly Thr Arg Thr Gln Thr		380
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Ile Ser Leu Gly Gln Gly Gln Gly Pro Ile Ala Ala Lys Met Ile Asn		400
	405	410
Asn Ala Ile Lys Asp Gly Thr Trp Val Val Leu Gln Asn Cys His Leu		415
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Ala Ala Ser Trp Met Pro Thr Leu Glu Lys Ile Cys Glu Glu Val Ile		430
	435	440
Val Pro Glu Ser Thr Asn Ala Arg Phe Arg Leu Trp Leu Thr Ser Tyr		445
	450	455
Pro Ser Glu Lys Phe Pro Val Ser Ile Leu Gln Asn Gly Ile Lys Met		460
465	470	475
Thr Asn Glu Pro Pro Lys Gly Leu Arg Ala Asn Leu Leu Arg Ser Tyr		480
	485	490
Leu Asn Asp Pro Ile Ser Asp Pro Val Phe Phe Gln Ser Cys Ala Lys		495
	500	505
Ala Val Met Trp Gln Lys Met Leu Phe Gly Leu Cys Phe Phe His Ala		510
	515	520
Val Val Gln Glu Arg Arg Asn Phe Gly Pro Leu Gly Trp Asn Ile Pro		525
	530	535
Tyr Glu Phe Asn Glu Ser Asp Leu Arg Ile Ser Met Trp Gln Ile Gln		540
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Met Phe Leu Asn Asp Tyr Lys Glu Val Pro Phe Asp Ala Leu Thr Tyr		560

565 570 575
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 675 680 685
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 705 710 715 720
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 Lys Val Val Arg Arg Ser Leu Ile Asn Leu Gly Arg Ala Ile Lys Gly
 740 745 750
 Gln Val Leu Met Ser Ser Glu Leu Glu Glu Val Phe Asn Ser Met Leu
 755 760 765
 Val Gly Lys Val Pro Ala Met Trp Ala Ala Lys Ser Tyr Pro Ser Leu
 770 775 780
 Lys Pro Leu Gly Gly Tyr Val Ala Asp Leu Leu Ala Arg Leu Thr Phe
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 835 840 845
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 850 855 860
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 Ser Thr Thr Gly His Ser Thr Asn Tyr Val Leu Ser Ile Glu Leu Pro
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<210> 4651

<211> 869

<212> DNA

<213> Homo sapiens

<400> 4651

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<210> 4652

<211> 289

<212> PRT

<213> Homo sapiens

<400> 4652

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	20							25				30			
Gly	Ala	Ala	Ser	Ala	Val	Ser	Leu	Ala	Gly	Ala	Ser	Leu	Val	Leu	Ser
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Leu	Leu	Gln	Arg	Val	Ala	Ser	Tyr	Ala	Arg	Lys	Trp	Gln	Gln	Met	Arg
	50					55				60					
Pro	Ile	Pro	Thr	Val	Ala	Arg	Ala	Tyr	Pro	Leu	Val	Gly	His	Ala	Leu
65				70				75				80			
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			85				90					95			
Thr	Glu	Glu	Tyr	Arg	His	Met	Pro	Leu	Leu	Lys	Leu	Trp	Val	Gly	Pro

	100		105		110										
Val	Pro	Met	Val	Ala	Leu	Tyr	Asn	Ala	Glu	Asn	Val	Glu	Val	Ile	Leu
	115		120		125										
Thr	Ser	Ser	Lys	Gln	Ile	Asp	Lys	Ser	Ser	Met	Tyr	Lys	Phe	Leu	Glu
	130		135		140										
Pro	Trp	Leu	Gly	Leu	Gly	Leu	Leu	Thr	Ser	Thr	Gly	Asn	Lys	Trp	Arg
145			150		155									160	
Ser	Arg	Arg	Lys	Met	Leu	Thr	Pro	Thr	Phe	His	Phe	Thr	Ile	Leu	Glu
	165		170		175										
Asp	Phe	Leu	Asp	Ile	Met	Asn	Glu	Gln	Ala	Asn	Ile	Leu	Val	Lys	Lys
	180		185		190										
Leu	Glu	Lys	His	Ile	Asn	Gln	Glu	Ala	Phe	Asn	Cys	Phe	Phe	Tyr	Ile
	195		200		205										
Thr	Leu	Cys	Ala	Leu	Asp	Ile	Ile	Cys	Glu	Thr	Ala	Met	Gly	Lys	Asn
	210		215		220										
Ile	Gly	Ala	Gln	Ser	Asn	Asp	Asp	Ser	Glu	Tyr	Val	Arg	Ala	Val	Tyr
225			230		235									240	
Arg	Met	Ser	Glu	Met	Ile	Phe	Pro	Arg	Ile	Lys	Met	Pro	Trp	Leu	Trp
	245		250		255										
Leu	Asp	Leu	Trp	Tyr	Leu	Met	Phe	Lys	Glu	Gly	Trp	Glu	His	Lys	Lys
	260		265		270										
Ser	Leu	Lys	Ile	Leu	His	Thr	Phe	Thr	His	Ser	Val	Ile	Pro	Glu	Arg
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Ala															

<210> 4653

<211> 1276

<212> DNA

<213> Homo sapiens

<400> 4653

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120

gtttgaacct ctaacaaaa ggaacgaaga tgccgaggag cctgcctacg gagacacggc

180

cagtaacgga gatccccaga tccacgtggg actcctgcgc gacagtggca gcgagtgtct

240

cctcgtgcac gtgctgcagc tgaagaacct ggcggggctg gcggtgaagg aagactgcaa

300

agtccacatc cgagtctatt tgccccact tcggtggata gcggtgtag caactgcacc

360

cagaccagcc ctccgtacct agagccctgt tgcattggta tcgactccat cctgggccac

420

ccatttgctg ctccagcagg gccttacagc cccgagaaat ttcagccctc gcctcttaag

480

gttgataagg aaaccaacac ggaagatctc tttctggaag aagcagccag cctcgtgaag

540

gagcggccca gccgcgggc ccgagggctg ccttttgctc ggagtggcac gattgtccgt

600

tcccagacat tctgcctgg agcacgaagc cagtatgttt gcagacttta tcgtagtgc

660

agcgacagtt caacgctgcc ccggaagtcc ccctttgtcc gaaatacttt ggaaagacga
 720
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 780
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 840
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 900
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 960
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 aagaaggcct ccaaggagat ctaccagctg cgtgggcaga gccacaaaga gcccatccaa
 1080
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 1140
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<210> 4654

<211> 255

<212> PRT

<213> Homo sapiens

<400> 4654

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Pro	Tyr	Ser	Pro	Glu	Lys	Phe	Gln	Pro	Ser	Pro	Leu	Lys	Val	Asp	Lys
			20					25					30		
Glu	Thr	Asn	Thr	Glu	Asp	Leu	Phe	Leu	Glu	Glu	Ala	Ala	Ser	Leu	Val
		35				40						45			
Lys	Glu	Arg	Pro	Ser	Arg	Arg	Ala	Arg	Gly	Ser	Pro	Phe	Val	Arg	Ser
	50				55					60					
Gly	Thr	Ile	Val	Arg	Ser	Gln	Thr	Phe	Ser	Pro	Gly	Ala	Arg	Ser	Gln
65				70					75					80	
Tyr	Val	Cys	Arg	Leu	Tyr	Arg	Ser	Asp	Ser	Asp	Ser	Ser	Thr	Leu	Pro
			85					90					95		
Arg	Lys	Ser	Pro	Phe	Val	Arg	Asn	Thr	Leu	Glu	Arg	Arg	Thr	Leu	Arg
		100					105						110		
Tyr	Lys	Gln	Ser	Cys	Arg	Ser	Ser	Leu	Ala	Glu	Leu	Met	Ala	Arg	Thr
		115				120						125			
Ser	Leu	Asp	Leu	Glu	Leu	Asp	Leu	Gln	Ala	Ser	Arg	Thr	Arg	Gln	Arg
	130				135						140				
Gln	Leu	Asn	Glu	Glu	Leu	Cys	Ala	Leu	Arg	Glu	Leu	Arg	Gln	Arg	Leu
145			150						155				160		
Glu	Asp	Ala	Gln	Leu	Arg	Gly	Gln	Thr	Asp	Leu	Pro	Pro	Trp	Val	Leu
		165				170							175		
Arg	Asp	Glu	Arg	Leu	Arg	Gly	Leu	Leu	Arg	Glu	Ala	Glu	Arg	Gln	Thr
		180				185						190			
Arg	Gln	Thr	Lys	Leu	Asp	Tyr	Arg	His	Glu	Gln	Ala	Ala	Glu	Lys	Met

195	200	205
Leu Lys Lys Ala Ser Lys Glu Ile Tyr Gln Leu Arg Gly Gln Ser His		
210	215	220
Lys Glu Pro Ile Gln Val Gln Thr Phe Arg Glu Lys Ile Ala Phe Phe		
225	230	235
Thr Arg Pro Arg Ile Asn Ile Pro Pro Leu Pro Ala Asp Asp Val		
245	250	255

<210> 4655

<211> 456

<212> DNA

<213> Homo sapiens

<400> 4655

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120
cgccacgggg tccgccgcgc cgcgccgcgc cgccttgtag ttctggaaga tgaagtagag
180
cttgcctcgc agcacgaaga tgtaaaggaa ccacaggatc atggcgtagc cgcgcttggc
240
cgtgcgcacc tcggcgccca cccacacggc cacgtagcgc agcaccagca ggaagcacac
300
gtcgcgccacc agcacgatga tgcacacgcc gatcttgccg gggccctggg tctgctccac
360
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456

<210> 4656

<211> 152

<212> PRT

<213> Homo sapiens

<400> 4656

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20	25	30
Gln Gln Gln Arg Gln Arg Leu Ala Arg His Gly Val Arg Arg Ala Ala		
35	40	45
Pro Arg Arg Leu Val Val Leu Glu Asp Glu Val Glu Leu Asp Leu Gln		
50	55	60
His Glu Asp Val Lys Glu Pro Gln Asp His Gly Val Ala Ala Leu Gly		
65	70	75
Arg Ala His Leu Gly Ala His Pro His Gly His Val Ala Gln His Gln		
85	90	95
Gln Glu Ala His Val Ala His Gln His Asp Asp Ala His Ala Asp Leu		
100	105	110
Ala Arg Ala Leu Val Leu Leu His Gln Val Arg Val His Asp Gly His		
115	120	125
Ala Ala His Asp His Gln Arg Gly Gln Ala His Val Ala Pro Val Arg		

130 135 140
 Gly Arg Gln His His Gly Arg Pro
 145 150

<210> 4657
 <211> 723
 <212> DNA
 <213> Homo sapiens

<400> 4657
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 120
 gagtcaggcc tagggaaatc caccctcatc aacagcctct tcctcaccaa cctctatgag
 180
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 240
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 300
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 420
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 480
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 723

<210> 4658
 <211> 233
 <212> PRT
 <213> Homo sapiens

<400> 4658
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 20 25 30
 Glu Ser Gly Leu Gly Lys Ser Thr Leu Ile Asn Ser Leu Phe Leu Thr
 35 40 45
 Asn Leu Tyr Glu Asp Arg Gln Val Pro Glu Ala Ser Ala Arg Leu Thr
 50 55 60
 Gln Thr Leu Ala Ile Glu Arg Arg Gly Val Glu Ile Glu Glu Gly Gly
 65 70 75 80
 Val Lys Val Lys Leu Thr Leu Val Asp Thr Pro Gly Phe Gly Asp Ser

	85		90		95										
Val	Asp	Cys	Ser	Asp	Cys	Trp	Leu	Pro	Val	Val	Lys	Phe	Ile	Glu	Glu
	100						105						110		
Gln	Phe	Glu	Gln	Tyr	Leu	Arg	Asp	Glu	Ser	Gly	Leu	Asn	Arg	Lys	Asn
	115						120						125		
Ile	Gln	Asp	Ser	Arg	Val	His	Cys	Cys	Leu	Tyr	Phe	Ile	Ser	Pro	Phe
	130					135						140			
Gly	Arg	Ala	Pro	Ala	Pro	Arg	Cys	Gly	Phe	Leu	Arg	Ala	Ile	His	Glu
	145					150				155				160	
Lys	Val	Asn	Ile	Ile	Pro	Val	Ile	Gly	Lys	Ala	Asp	Ala	Leu	Met	Pro
			165					170						175	
Gln	Glu	Thr	Gln	Ala	Leu	Lys	Gln	Lys	Ile	Arg	Asp	Gln	Leu	Lys	Glu
			180					185					190		
Glu	Glu	Ile	His	Ile	Tyr	Gln	Phe	Pro	Glu	Cys	Asp	Ser	Asp	Glu	Asp
	195						200					205			
Glu	Asp	Phe	Lys	Arg	Gln	Asp	Ala	Glu	Met	Lys	Glu	Ser	Ile	Pro	Phe
	210					215					220				
Ala	Val	Val	Gly	Ser	Cys	Glu	Val	Val							
225						230									

<210> 4659

<211> 864

<212> DNA

<213> Homo sapiens

<400> 4659

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 120
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 180
 caactggcag acaggcatgt gtgactgttt cagcgactgc ggagtctgtc tctgtggcac
 240
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 360
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 420
 agatatcaac agaaggagag ccatgcgtac tttctaaaaa ctgatggtga aaagctctta
 480
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 540
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 600
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 660
 gctttcatat tctcgaattc gaatttcttg gcttataaac tttttaaatt acatttgaaa
 720
 tataaaccaa atgaaatatt ttactgataa gattcttcat gcttctttgc tctccttaaa
 780
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<210> 4660

<211> 192

<212> PRT

<213> Homo sapiens

<400> 4660

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Asp	Gly	Glu	Glu	Leu	Lys	Leu	Lys	Arg	Cys	Leu	Leu	Asn	Phe	Val	Ala
		20						25					30		
Ser	Val	Arg	Ala	Phe	His	His	Gln	Phe	Leu	Glu	Ser	Thr	His	Gly	Ser
		35					40					45			
Pro	Ser	Val	Asp	Ile	Ser	Leu	Asp	Leu	Ala	Lys	Ser	Thr	Met	Arg	Thr
	50					55					60				
Ala	Lys	Ser	Cys	His	Ile	Val	Ile	Thr	Asn	Arg	Ser	Arg	Asp	Ala	Ile
65				70					75					80	
Ser	Gly	Pro	Val	Glu	Ser	Pro	His	Cys	Asp	Ala	Cys	Ser	Thr	Gln	Thr
			85					90						95	
Ala	Phe	Ile	His	Ile	Ser	Cys	Asn	Leu	Thr	Pro	Lys	Ala	Arg	Glu	Thr
			100					105					110		
Lys	Cys	Ala	Thr	Glu	Thr	Asp	Ser	Ala	Val	Ala	Glu	Thr	Val	Thr	His
		115				120						125			
Ala	Cys	Leu	Pro	Val	Gly	Val	Leu	Gly	Gly	Arg	Thr	Gly	Thr	Asp	Ser
	130				135					140					
Arg	Leu	Gly	His	Asn	Asp	His	Arg	Arg	Leu	Ser	Leu	His	Phe	Gln	Cys
145				150					155					160	
Arg	Ala	Phe	His	Val	Val	Phe	Ile	Cys	Gly	Glu	Ile	Leu	Ser	Gln	Ala
			165					170						175	
Thr	Arg	His	Phe	Leu	Leu	Gly	Thr	Leu	Phe	Thr	Asn	Phe	His	Cys	Phe
			180					185						190	

<210> 4661

<211> 153

<212> DNA

<213> Homo sapiens

<400> 4661

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tttgaggacc ctcaccatgg ccatgggcag ttc
153

<210> 4662

<211> 51

<212> PRT

<213> Homo sapiens

<400> 4662

Arg Ile Cys Met Pro Leu Thr Val Asp Glu Tyr Lys Ile Gly Gln Leu

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Tyr Met Ile Ser Lys His Ser His Glu Gln Ser Asp Arg Gly Glu Gly			
	20	25	30
Val Glu Val Val Gln Asn Glu Pro Phe Glu Asp Pro His His Gly His			
	35	40	45
Gly Gln Phe			
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<210> 4663

<211> 1550

<212> DNA

<213> Homo sapiens

<400> 4663

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720
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1020
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1200

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<210> 4664

<211> 347

<212> PRT

<213> Homo sapiens

<400> 4664

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			20					25					30		
Glu	Ile	Ala	Ser	Ser	Pro	Ala	Gly	Gln	Thr	Asp	Asp	Pro	Gly	Pro	Leu
		35					40					45			
Asp	Gly	Pro	Asp	Leu	Gln	Ala	Ser	His	Ser	Glu	Leu	Gln	Val	Pro	Thr
	50					55					60				
Pro	Gly	Arg	Ala	Gly	Leu	Leu	Asn	Thr	Ser	Gly	Thr	Lys	Gly	Leu	Glu
65					70					75				80	
Cys	Ser	Pro	Ser	Thr	Pro	Thr	Met	Asn	Ser	Tyr	Phe	Tyr	Lys	Phe	Met
				85					90					95	
Ile	Asn	Leu	Leu	Lys	Arg	Phe	Ser	Ser	Glu	Arg	Lys	Leu	Leu	Glu	Val
		100						105					110		
Arg	Gly	Pro	Phe	Ile	Ile	Arg	Gln	Leu	Cys	Leu	Leu	Leu	Asn	Ala	Glu
		115					120					125			
Asn	Ile	Phe	His	Ser	Met	Ala	Asp	Ile	Leu	Leu	Arg	Glu	Glu	Asp	Leu
	130					135					140				
Lys	Phe	Ala	Ser	Thr	Met	Val	His	Ala	Leu	Asn	Thr	Ile	Leu	Leu	Thr
145					150					155				160	
Ser	Thr	Glu	Leu	Phe	Gln	Leu	Arg	Asn	Gln	Leu	Lys	Asp	Leu	Lys	Thr
			165						170					175	
Leu	Glu	Ser	Gln	Asn	Leu	Phe	Cys	Cys	Leu	Tyr	Arg	Ser	Trp	Cys	His
		180					185						190		
Asn	Pro	Val	Thr	Thr	Val	Ser	Leu	Cys	Phe	Leu	Thr	Gln	Asn	Tyr	Arg
		195					200					205			
His	Ala	Tyr	Asp	Leu	Ile	Gln	Lys	Phe	Gly	Asp	Leu	Glu	Val	Thr	Val
	210					215					220				
Asp	Phe	Leu	Ala	Glu	Val	Asp	Lys	Leu	Val	Gln	Leu	Ile	Glu	Cys	Pro
225				230						235				240	
Ile	Phe	Thr	Tyr	Leu	Arg	Leu	Gln	Leu	Leu	Asp	Val	Lys	Asn	Asn	Pro
			245					250					255		
Tyr	Leu	Ile	Lys	Ala	Leu	Tyr	Gly	Leu	Leu	Met	Leu	Leu	Pro	Gln	Ser
		260					265					270			
Ser	Ala	Phe	Gln	Leu	Leu	Ser	His	Arg	Leu	Gln	Cys	Val	Pro	Asn	Pro

275	280	285
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290	295	300
Lys Ala Asp Ser Pro Ser Ile Asp Tyr Ala Glu Leu Leu Gln His Phe		
305	310	315
Glu Lys Val Gln Asn Lys His Leu Glu Val Arg His Gln Arg Ser Gly		
325	330	335
Arg Gly Asp His Leu Asp Arg Arg Val Val Leu		
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<210> 4665

<211> 1043

<212> DNA

<213> Homo sapiens

<400> 4665

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180
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300
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420
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<210> 4666

<211> 167

<212> PRT

<213> Homo sapiens

<400> 4666

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 Arg Glu Phe Trp Ser Arg Phe Arg Lys Glu Lys Glu Pro Val Val Val
 35 40 45
 Glu Thr Val Glu Glu Lys Lys Glu Pro Ile Leu Val Cys Pro Pro Leu
 50 55 60
 Arg Ser Arg Ala Tyr Thr Pro Pro Glu Asp Leu Gln Ser Arg Leu Glu
 65 70 75 80
 Ser Tyr Val Lys Glu Val Phe Gly Ser Ser Leu Pro Ser Asn Trp Gln
 85 90 95
 Asp Ile Ser Leu Glu Asp Ser Arg Leu Lys Phe Asn Leu Leu Ala His
 100 105 110
 Leu Ala Asp Asp Leu Gly His Val Val Pro Asn Ser Arg Leu His Gln
 115 120 125
 Met Cys Arg Val Arg Asp Val Leu Asp Phe Tyr Asn Val Pro Ile Gln
 130 135 140
 Asp Arg Ser Lys Phe Asp Glu Leu Ser Ala Ser Asn Leu Pro Pro Asn
 145 150 155 160
 Leu Lys Ile Thr Trp Ser Tyr
 165

<210> 4667

<211> 1031

<212> DNA

<213> Homo sapiens

<400> 4667

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 360
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 420
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 720
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 1031

<210> 4668

<211> 207

<212> PRT

<213> Homo sapiens

<400> 4668

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		20					25						30		
Ala	Gln	Lys	Ala	Arg	Trp	Leu	Ile	Pro	Leu	Leu	Glu	Gly	Lys	Ala	Arg
		35				40					45				
Ser	Cys	Phe	Ala	Met	Thr	Glu	Pro	Gln	Val	Ala	Ser	Ser	Asp	Ala	Thr
	50				55				60						
Asn	Ile	Glu	Ala	Ser	Ile	Arg	Glu	Glu	Asp	Ser	Phe	Tyr	Val	Ile	Asn
65				70					75					80	
Gly	His	Lys	Trp	Trp	Ile	Thr	Gly	Ile	Leu	Asp	Pro	Arg	Cys	Gln	Leu
			85					90					95		
Cys	Val	Phe	Met	Gly	Lys	Thr	Asp	Pro	His	Ala	Pro	Arg	His	Arg	Gln
			100					105					110		
Gln	Ser	Val	Leu	Leu	Val	Pro	Met	Asp	Thr	Pro	Gly	Ile	Lys	Ile	Ile
		115				120					125				
Arg	Pro	Leu	Thr	Val	Tyr	Gly	Leu	Glu	Asp	Ala	Pro	Gly	Gly	His	Gly
		130				135					140				
Glu	Val	Arg	Phe	Glu	His	Val	Arg	Val	Pro	Lys	Glu	Asn	Met	Val	Leu
145				150						155				160	
Gly	Pro	Gly	Arg	Gly	Phe	Glu	Ile	Ala	Gln	Gly	Arg	Leu	Gly	Pro	Gly
			165					170					175		
Arg	Ile	His	His	Cys	Met	Arg	Leu	Ile	Gly	Phe	Ser	Glu	Arg	Ala	Leu
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Ala	Leu	Met	Lys	Ala	Arg	Val	Ser	Ala	Phe	Pro	Arg	Thr	Gln	His	
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<210> 4669

<211> 683

<212> DNA

<213> Homo sapiens

<400> 4669

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 120
 gacatgaaca taaaaaaaca gattcaggaa cagcaccagg ctgccattat tattcagaag
 180
 cattgtaaag cctttaaaat aaggaagcat tatctccaca ttagagcaac agtagtttct
 240
 attcaaagaa gatacagaaa actaactgca gtgcgtaccc aagcagttat ttgtatacag
 300
 tcttattaca gaggctttta agtacgaaag gatattcaaa atatgcaccg ggctgccaca
 360
 ctaattcagt cattctatcg aatgcacagg gccaaagttg attattaaac aaagaaaact
 420
 gcaattgtgg ttatacagaa ttattatagg ttgtatgta gagtaaaaac agaaagaaaa
 480
 aacttttttag cagttcagaa atctgtccga actattcagg ctgcttttag aggcataaaa
 540
 gttagacaaa aattgaaaaa atgtatcaga ggaaaagatg gcagccattg ttaaccaatc
 600
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 gattcaagag tggataaaag ctt
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<210> 4670

<211> 135

<212> PRT

<213> Homo sapiens

<400> 4670

Xaa	Ser	Phe	Ser	Gly	Leu	Arg	Gly	Ile	Ile	Gln	Glu	Lys	Tyr	Arg	Ala
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Asn	Lys	Lys	Lys	Gln	Lys	Val	Phe	Gln	His	Asn	Glu	Leu	Lys	Lys	Glu
			20					25					30		
Thr	Cys	Val	Gln	Ala	Gly	Phe	Gln	Asp	Met	Asn	Ile	Lys	Lys	Gln	Ile
		35					40					45			
Gln	Glu	Gln	His	Gln	Ala	Ala	Ile	Ile	Ile	Gln	Lys	His	Cys	Lys	Ala
		50				55					60				
Phe	Lys	Ile	Arg	Lys	His	Tyr	Leu	His	Ile	Arg	Ala	Thr	Val	Val	Ser
65					70					75				80	
Ile	Gln	Arg	Arg	Tyr	Arg	Lys	Leu	Thr	Ala	Val	Arg	Thr	Gln	Ala	Val
			85					90					95		
Ile	Cys	Ile	Gln	Ser	Tyr	Tyr	Arg	Gly	Phe	Lys	Val	Arg	Lys	Asp	Ile
			100				105						110		
Gln	Asn	Met	His	Arg	Ala	Ala	Thr	Leu	Ile	Gln	Ser	Phe	Tyr	Arg	Met
		115					120						125		
His	Arg	Ala	Lys	Val	Asp	Tyr									
		130				135									

<210> 4671

<211> 657

<212> DNA

<213> Homo sapiens

<400> 4671

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 180
 taggccaggc tgctgcagt gtttcagcat ctatccgag ggatccacgg ggaagctggt
 240
 gtgcgccgga taaagatggc aaccgccgat gagattgtga aactcatgct cgaccacatg
 300
 acaaacacca ccaacgcgtc ccatgtgect gtgcagccc gctcctcagt tgtgatgatg
 360
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 420
 cgctccctgg agggccgagg ggtgaagatt gccctgccc tgggtgggac ctcatgtca
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 540
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 657

<210> 4672

<211> 152

<212> PRT

<213> Homo sapiens

<400> 4672

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 20 25 30
 Lys Leu Met Leu Asp His Met Thr Asn Thr Thr Asn Ala Ser His Val
 35 40 45
 Pro Val Gln Pro Gly Ser Ser Val Val Met Met Val Asn Asn Leu Gly
 50 55 60
 Gly Leu Ser Phe Leu Glu Leu Gly Ile Ile Ala Asp Ala Thr Val Arg
 65 70 75 80
 Ser Leu Glu Gly Arg Gly Val Lys Ile Ala Arg Ala Leu Val Gly Thr
 85 90 95
 Phe Met Ser Ala Leu Glu Met Pro Gly Ile Ser Leu Thr Leu Leu Leu
 100 105 110
 Val Asp Glu Pro Leu Leu Lys Leu Ile Asp Ala Glu Thr Thr Ala Ala
 115 120 125
 Ala Trp Pro Arg Ser Gly Trp Arg Trp Cys Trp Asn Gly Cys Ala Ala
 130 135 140
 Leu Ser Trp Ala Trp Arg Asn Thr
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<210> 4673

<211> 1335

<212> DNA

<213> Homo sapiens

<400> 4673

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240
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1335

<210> 4674

<211> 402

<212> PRT

<213> Homo sapiens

<400> 4674

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      20           25           30
Ala Asn Ser Leu Ala Ser Ser Gly Pro His Asn Leu Thr Tyr Pro Leu
      35           40           45
Gly Pro Arg Asn Glu Asp Leu Ser Leu Asp Tyr Ala Ser Gln Pro Ala
      50           55           60
Asn Leu Gln Phe Pro His Ile Met Pro Leu Ala Glu Asp Ile Lys Gly
65           70           75           80
Ser Cys Phe Gln Ser Gly Asn Lys Arg Asn His Glu Pro Phe Ile Ala
      85           90           95
Pro Glu Arg Phe Gly Asn Ser Ser Val Gly Phe Gly Ser Asn Ser His
      100          105          110
Ser Gln Ala Pro Glu Lys Val Thr Leu Leu Val Asp Gly Thr Arg Phe
      115          120          125
Val Val Asn Pro Gln Ile Phe Thr Ala His Pro Asp Thr Met Leu Gly
      130          135          140
Arg Met Phe Gly Pro Gly Arg Glu Tyr Asn Phe Thr Arg Pro Asn Glu
145          150          155          160
Lys Gly Glu Tyr Glu Ile Ala Glu Gly Ile Ser Ala Thr Val Phe Arg
      165          170          175
Thr Val Leu Asp Tyr Tyr Lys Thr Gly Ile Ile Asn Cys Pro Asp Gly
      180          185          190
Ile Ser Ile Pro Asp Leu Arg Asp Thr Cys Asp Tyr Leu Cys Ile Asn
      195          200          205
Phe Asp Phe Asn Thr Ile Arg Cys Gln Asp Leu Ser Ala Leu Leu His
      210          215          220
Glu Leu Ser Asn Asp Gly Ala His Lys Gln Phe Asp His Tyr Leu Glu
225          230          235          240
Glu Leu Ile Leu Pro Ile Met Val Gly Cys Ala Lys Lys Gly Glu Arg
      245          250          255
Glu Cys His Ile Val Val Leu Thr Asp Glu Asp Ser Val Asp Trp Asp
      260          265          270
Glu Asp His Pro Pro Pro Met Gly Glu Glu Tyr Ser Gln Ile Leu Tyr
      275          280          285
Ser Ser Lys Leu Tyr Arg Phe Phe Lys Tyr Ile Glu Asn Arg Asp Val
      290          295          300
Ala Lys Thr Val Leu Lys Glu Arg Gly Leu Lys Asn Ile Arg Ile Gly
305          310          315          320
Ile Glu Gly Tyr Pro Thr Cys Lys Glu Lys Ile Lys Arg Arg Pro Gly
      325          330          335
Gly Arg Ser Glu Val Ile Tyr Asn Tyr Val Gln Arg Pro Phe Ile Gln
      340          345          350
Met Ser Trp Glu Lys Glu Glu Gly Lys Ser Arg His Val Asp Phe Gln
      355          360          365
Cys Val Arg Ser Lys Ser Leu Thr Asn Leu Val Ala Ala Gly Asp Asp
      370          375          380
Val Leu Glu Asp Gln Glu Ile Leu Met His His Pro Pro Gln Val Asp

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385
Glu Leu

390

395

400

<210> 4675

<211> 2868

<212> DNA

<213> Homo sapiens

<400> 4675

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2760
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2868

<210> 4676

<211> 641

<212> PRT

<213> Homo sapiens

<400> 4676

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 20 25 30
 Glu Phe Asn Pro Ser Ser Ser Gly Arg Ser Ala Arg Thr Val Ser Ser
 35 40 45
 Asn Ser Phe Cys Ser Asp Asp Thr Gly Cys Pro Ser Ser Gln Ser Val
 50 55 60
 Ser Pro Val Lys Thr Pro Ser Asp Ala Gly Asn Ser Pro Ile Gly Phe
 65 70 75 80
 Cys Pro Gly Ser Asp Glu Gly Phe Thr Arg Lys Lys Cys Thr Ile Gly
 85 90 95
 Met Val Gly Glu Gly Ser Ile Gln Ser Ser Arg Tyr Lys Lys Glu Ser
 100 105 110
 Lys Ser Gly Leu Val Lys Pro Gly Ser Glu Ala Asp Phe Ser Ser Ser
 115 120 125
 Ser Ser Thr Gly Ser Ile Ser Ala Pro Glu Val His Met Ser Thr Ala
 130 135 140
 Gly Ser Lys Arg Ser Ser Ser Ser Arg Asn Arg Gly Pro His Gly Arg
 145 150 155 160
 Ser Asn Gly Ala Ser Ser His Lys Pro Gly Ser Ser Ser Ser Pro
 165 170 175
 Arg Glu Lys Asp Leu Leu Ser Met Leu Cys Arg Asn Gln Leu Ser Pro
 180 185 190
 Val Asn Ile His Pro Ser Tyr Ala Pro Ser Ser Pro Ser Ser Ser Asn
 195 200 205
 Ser Gly Ser Tyr Lys Gly Ser Asp Cys Ser Pro Ile Met Arg Arg Ser
 210 215 220
 Gly Arg Tyr Met Ser Cys Gly Glu Asn His Gly Val Arg Pro Pro Asn
 225 230 235 240
 Pro Glu Gln Tyr Leu Thr Pro Leu Gln Gln Lys Glu Val Thr Val Arg
 245 250 255
 His Leu Lys Thr Lys Leu Lys Glu Ser Glu Arg Arg Leu His Glu Arg
 260 265 270
 Glu Ser Glu Ile Val Glu Leu Lys Ser Gln Leu Ala Arg Met Arg Glu
 275 280 285
 Asp Trp Ile Glu Glu Glu Cys His Arg Val Glu Ala Gln Leu Ala Leu
 290 295 300
 Lys Glu Ala Arg Lys Glu Ile Lys Gln Leu Lys Gln Val Ile Glu Thr
 305 310 315 320
 Met Arg Ser Ser Leu Ala Asp Lys Asp Lys Gly Ile Gln Lys Tyr Phe
 325 330 335
 Val Asp Ile Asn Ile Gln Asn Lys Lys Leu Glu Ser Leu Leu Gln Ser
 340 345 350
 Met Glu Met Ala His Ser Gly Ser Leu Arg Asp Glu Leu Cys Leu Asp
 355 360 365
 Phe Pro Cys Asp Ser Pro Glu Lys Ser Leu Thr Leu Asn Pro Pro Leu
 370 375 380
 Asp Thr Met Ala Asp Gly Leu Ser Leu Glu Glu Gln Val Thr Gly Glu

385		390		395		400									
Gly	Ala	Asp	Arg	Glu	Leu	Leu	Val	Gly	Asp	Ser	Ile	Ala	Asn	Ser	Thr
				405					410					415	
Asp	Leu	Phe	Asp	Glu	Ile	Val	Thr	Ala	Thr	Thr	Thr	Glu	Ser	Gly	Asp
			420						425					430	
Leu	Glu	Leu	Val	His	Ser	Thr	Pro	Gly	Ala	Asn	Val	Leu	Glu	Leu	Leu
		435						440				445			
Pro	Ile	Val	Met	Gly	Gln	Glu	Glu	Gly	Ser	Val	Val	Val	Glu	Arg	Ala
		450				455					460				
Val	Gln	Thr	Asp	Val	Val	Pro	Tyr	Ser	Pro	Ala	Ile	Ser	Glu	Leu	Ile
465					470					475				480	
Gln	Ser	Val	Leu	Gln	Lys	Leu	Gln	Asp	Pro	Cys	Pro	Ser	Ser	Leu	Ala
			485						490					495	
Ser	Pro	Asp	Glu	Ser	Glu	Pro	Asp	Ser	Met	Glu	Ser	Phe	Pro	Glu	Ser
		500						505					510		
Leu	Ser	Ala	Leu	Val	Val	Asp	Leu	Thr	Pro	Arg	Asn	Pro	Asn	Ser	Ala
		515					520					525			
Ile	Leu	Leu	Ser	Pro	Val	Glu	Thr	Pro	Tyr	Xaa	Gln	Cys	Gly	Cys	Arg
	530					535					540				
Ser	Ser	Cys	Lys	Pro	Pro	His	Glu	Arg	Ala	Gly	Xaa	Phe	Ala	Ala	Cys
545					550					555				560	
Val	Glu	Glu	Arg	Leu	Asp	Gly	Val	Ile	Pro	Leu	Ala	Arg	Gly	Gly	Val
			565						570					575	
Val	Arg	Gln	Tyr	Trp	Ser	Ser	Ser	Phe	Leu	Val	Asp	Leu	Leu	Ala	Val
		580					585					590			
Ala	Ala	Pro	Val	Val	Pro	Thr	Val	Leu	Trp	Ala	Phe	Ser	Thr	Gln	Arg
		595					600					605			
Gly	Gly	Thr	Asp	Pro	Val	Tyr	Asn	Ile	Gly	Ala	Leu	Leu	Arg	Gly	Cys
	610					615					620				
Cys	Val	Val	Ala	Leu	His	Ser	Leu	Arg	Arg	Thr	Ala	Phe	Arg	Ile	Lys
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Thr															

<210> 4677

<211> 940

<212> DNA

<213> Homo sapiens

<400> 4677

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120

tagaagctga ggttgggggtt cgtactggga agaaatctgg catcgagttc aattccgcca

180

ataactgggc aagcatggct ttgttctcct tgatgttcat ggctcttttc agtaaagcat

240

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300

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360

aggtgcgcta gaaaacaact gctcggaaga actgttttta tctgggttgt tggccagctt

420

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 720
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 780
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 840
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 940

<210> 4678

<211> 133

<212> PRT

<213> Homo sapiens

<400> 4678

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Leu	Phe	Phe	Ser	His	Ser	Val	Arg	Cys	Ala	Arg	Lys	Gln	Leu	Leu	Gly
			20					25					30		
Arg	Thr	Val	Phe	Ile	Trp	Phe	Val	Gly	Gln	Leu	Leu	Gly	Gly	Glu	Leu
	35					40						45			
Lys	Gly	Tyr	Ser	Lys	Thr	Asn	Thr	Thr	Ser	Ser	Arg	Pro	Ala	Ser	Ser
	50					55					60				
Arg	Gly	Ser	Leu	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Leu	Thr	Lys
65					70				75					80	
Asp	Ala	Leu	Pro	Ser	Ser	Leu	Lys	Ser	Asp	Ser	Thr	Thr	Ile	Thr	Ser
				85					90					95	
Gly	Leu	Val	Phe	Pro	Phe	Arg	Ser	Leu	Cys	Val	Asn	Pro	Ala	Lys	Ser
		100						105					110		
Ser	Val	Ser	Glu	Ser	Val	Ser	Ser	Ile	Lys	Ile	Leu	Leu	Ser	Ser	Ser
		115					120					125			
Val	Lys	Tyr	Leu	Glu											
				130											

<210> 4679

<211> 2284

<212> DNA

<213> Homo sapiens

<400> 4679

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360
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1740

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 2284

<210> 4680

<211> 112

<212> PRT

<213> Homo sapiens

<400> 4680

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Thr	Ser	Phe	His	Arg	Gly	Thr	Cys	Leu	Glu	Phe	Trp	His	Arg	Gly	Leu
			20					25					30		
Thr	Glu	His	Ser	Ser	Asp	Ile	Phe	Leu	Gln	Leu	Glu	Met	Leu	Cys	Trp
			35				40					45			
Ser	Pro	Cys	Ser	Leu	Thr	Phe	Ser	Arg	Ala	Ile	Lys	Ala	Thr	Ser	Ser
		50				55					60				
Ile	Ala	Gly	Pro	Gln	Thr	Phe	Gln	Gly	Lys	His	Cys	Phe	Thr	Ser	Cys
					70				75					80	
Arg	Gln	Leu	Ile	Ser	Gln	Lys	Pro	Leu	Gln	Lys	Pro	Val	Leu	Pro	Gly
			85					90						95	
Thr	Ala	Gly	Ala	Gly	Val	Cys	Lys	Ile	Lys	Glu	Gly	Gln	Leu	Arg	Thr
			100					105						110	

<210> 4681

<211> 906

<212> DNA

<213> Homo sapiens

<400> 4681

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 120
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 180

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 240
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 480
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 780
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<210> 4682

<211> 153

<212> PRT

<213> Homo sapiens

<400> 4682

Met	Gly	Ser	His	Leu	Phe	Ile	Ser	Gly	Phe	Ser	Tyr	Asn	Pro	Val	Phe
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Lys	Glu	Met	Leu	Gln	Lys	Phe	Lys	Phe	Ser	His	Val	Tyr	Phe	Lys	Gln
			20					25					30		
Phe	Leu	Phe	His	Gln	Thr	Thr	Arg	Gln	Lys	Asn	Leu	Ser	Phe	Leu	Pro
			35				40					45			
Pro	Phe	Ser	Phe	Phe	Pro	Ser	Cys	Thr	His	Leu	Glu	Asn	Phe	Thr	Phe
			50				55				60				
Leu	Glu	Ser	Pro	Gln	Asn	Asn	Thr	Lys	Val	Ile	Val	Gly	Ala	Thr	Gly
					70					75				80	
Phe	Met	Leu	Tyr	Cys	Gly	Ala	Arg	Gly	Lys	Thr	Cys	Leu	Tyr	Ala	Gly
				85					90					95	
Asn	Thr	His	Asn	His	Ser	Phe	Arg	Phe	Val	Cys	Leu	Met	Val	Ile	Cys
			100				105					110			
His	Lys	Arg	Asp	Leu	Gln	Lys	Gln	Gly	Ala	Leu	Val	Asn	Val	Gln	Tyr
			115				120					125			
Leu	Asp	Phe	Cys	Val	Leu	Arg	Thr	Gln	Lys	Gly	Ala	Thr	Leu	Leu	Phe
			130				135					140			
Gly	Pro	Val	Ser	Gly	His	Leu	Val	Ile							
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<210> 4683

<211> 3246

<212> DNA

<213> Homo sapiens

<400> 4683

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<210> 4684

<211> 385

<212> PRT

<213> Homo sapiens

<400> 4684

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Arg	Pro	Leu	Asn	Ala	Ala	Ala	Ala	Ala	Ala	Thr	Pro	Val	Tyr	Pro	Ala
			20				25						30		
Pro	His	Ala	Arg	Ser	Arg	Val	Arg	Pro	Ala	Pro	Lys	Thr	Ile	Pro	Gln
		35				40						45			
Gln	Thr	His	Gly	Thr	Ala	Arg	Ile	Gly	Thr	His	Asn	Gly	Thr	Phe	His
	50					55					60				
Cys	Asp	Glu	Ala	Leu	Ala	Cys	Ala	Leu	Leu	Arg	Leu	Leu	Pro	Glu	Tyr
65				70						75				80	
Arg	Asp	Ala	Glu	Ile	Val	Arg	Thr	Arg	Asp	Pro	Glu	Lys	Leu	Ala	Ser
			85					90					95		
Cys	Asp	Ile	Val	Val	Asp	Val	Gly	Gly	Glu	Tyr	Asp	Pro	Arg	Arg	His
		100					105						110		
Arg	Tyr	Asp	His	His	Gln	Arg	Ser	Phe	Thr	Glu	Thr	Met	Ser	Ser	Leu
	115					120						125			
Ser	Pro	Gly	Lys	Pro	Trp	Gln	Thr	Lys	Leu	Ser	Ser	Ala	Gly	Leu	Ile
	130					135						140			
Tyr	Leu	His	Phe	Gly	His	Lys	Leu	Leu	Ala	Gln	Leu	Leu	Gly	Thr	Ser
145				150						155				160	
Glu	Glu	Asp	Ser	Met	Val	Gly	Thr	Leu	Tyr	Asp	Lys	Met	Tyr	Glu	Asn
			165					170					175		
Phe	Val	Glu	Glu	Val	Asp	Ala	Val	Asp	Asn	Gly	Ile	Ser	Gln	Trp	Ala
		180						185					190		
Glu	Gly	Glu	Pro	Arg	Tyr	Ala	Leu	Thr	Thr	Thr	Leu	Ser	Ala	Arg	Val
	195					200						205			
Ala	Arg	Leu	Asn	Pro	Thr	Trp	Asn	His	Pro	Asp	Gln	Asp	Thr	Glu	Ala
	210					215					220				
Gly	Phe	Lys	Arg	Ala	Met	Asp	Leu	Val	Gln	Glu	Glu	Phe	Leu	Gln	Arg
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Leu	Asp	Phe	Tyr	Gln	His	Ser	Trp	Leu	Pro	Ala	Arg	Ala	Leu	Val	Glu
			245					250					255		
Glu	Ala	Leu	Ala	Gln	Arg	Phe	Gln	Val	Asp	Pro	Ser	Gly	Glu	Ile	Val
		260					265						270		
Glu	Leu	Ala	Lys	Gly	Ala	Cys	Pro	Trp	Lys	Glu	His	Leu	Tyr	His	Leu
	275					280						285			
Glu	Ser	Gly	Leu	Ser	Pro	Pro	Val	Ala	Ile	Phe	Phe	Val	Ile	Tyr	Thr
	290					295					300				
Asp	Gln	Ala	Gly	Gln	Trp	Arg	Ile	Gln	Cys	Val	Pro	Lys	Glu	Pro	His

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 Ser Phe Gln Ser Arg Leu Pro Leu Pro Glu Pro Trp Arg Gly Leu Arg
 325 330 335
 Asp Glu Ala Leu Asp Gln Val Ser Gly Ile Pro Gly Cys Ile Phe Val
 340 345 350
 His Ala Ser Gly Phe Ile Gly Gly His Arg Thr Arg Glu Gly Ala Leu
 355 360 365
 Ser Met Ala Arg Ala Thr Leu Ala Gln Arg Ser Tyr Leu Pro Gln Ile
 370 375 380
 Ser
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<210> 4685

<211> 618

<212> DNA

<213> Homo sapiens

<400> 4685

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<210> 4686

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4686

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 Ser Gly Leu Ser Leu Gln Glu Ala Gln Gln Ile Leu Asn Val Ser Lys
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 Leu Ser Pro Glu Glu Val Gln Lys Asn Tyr Glu His Leu Phe Lys Val

50 55 60
 Asn Asp Lys Ser Val Gly Gly Ser Phe Tyr Leu Gln Ser Lys Val Val
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<210> 4687

<211> 309

<212> DNA

<213> Homo sapiens

<400> 4687

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<211> 90

<212> PRT

<213> Homo sapiens

<400> 4688

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 Val Ala Val Tyr Ser Leu Ser His Gly Glu Val Ser Tyr Asp Pro Leu
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<210> 4689

<211> 898

<212> DNA

<213> Homo sapiens

<400> 4689

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<213> Homo sapiens

<400> 4690

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Ser	His	Tyr	Glu	Phe	Ser	Arg	Val	Arg	Glu	Phe	Val	Gly	Gln	Leu	Val
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Gly	Glu	Ala	Ala	Gln	Asp	Ala	Val	Arg	Ala	Ser	Ala	Gln	Arg	Met	Gly
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Asp	Thr	His	Thr	Gly	Leu	Ala	Leu	Val	Tyr	Ala	Lys	Glu	Gln	Leu	Phe
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Ala	Glu	Ala	Ser	Gly	Ala	Arg	Pro	Gly	Val	Pro	Lys	Val	Leu	Val	Trp
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Val	Thr	Asp	Gly	Gly	Ser	Ser	Asp	Pro	Val	Gly	Pro	Pro	Met	Gln	Glu

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 195 200 205
 Arg Gly Ser Ile Leu Asp Ala Met Arg Pro Gln Gln Leu His Ala Thr
 210 215 220
 Glu Ile Thr Ser Ser Gly Phe Arg Leu Ala Trp Pro Pro Leu Leu Thr
 225 230 235 240
 Ala Asp Ser Gly Tyr Tyr Val Leu Glu Leu Val Pro Ser Ala Gln Pro
 245 250 255
 Gly Ala Ala Arg Arg Gln Gln Leu Pro Gly Asn Ala Thr Asp Trp Ile
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<210> 4691

<211> 2375

<212> DNA

<213> Homo sapiens

<400> 4691

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<210> 4692

<211> 383

<212> PRT

<213> Homo sapiens

<400> 4692

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Phe Leu Phe His Ala Ile Asn Lys Pro Asn Ala Pro Ile Trp Leu Ile
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Leu Asn Glu Ala Gly Leu Tyr Trp Arg Ala Val Gly Asn Ser Thr Phe
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Ala Ile Ala Cys Leu Gln Arg Ala Leu Asn Leu Ala Pro Leu Gln Tyr
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Gln Asp Val Pro Leu Val Asn Leu Ala Asn Leu Leu Ile His Tyr Gly
      85           90           95
Leu His Leu Asp Ala Thr Lys Leu Leu Leu Gln Ala Leu Ala Ile Asn
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Ser Ser Glu Pro Leu Thr Phe Leu Ser Leu Gly Asn Ala Tyr Leu Ala
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Leu Lys Asn Ile Ser Gly Ala Leu Glu Ala Phe Arg Gln Ala Leu Lys
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Leu Thr Thr Lys Cys Pro Glu Cys Glu Asn Ser Leu Lys Leu Ile Arg
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Cys Met Gln Phe Tyr Pro Phe Leu Tyr Asn Ile Thr Ser Ser Val Cys
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Ser Gly Asn Cys His Glu Lys Thr Leu Asp Asn Ser His Asp Lys Gln
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Lys Tyr Phe Asp Asn Ser Gln Ser Leu Asp Ala Ala Glu Glu Glu Pro
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Ser Glu Arg Gly Thr Glu Glu Asp Pro Val Phe Ser Val Glu Asn Ser
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Gly Arg Asp Ser Asp Ala Leu Arg Leu Glu Ser Thr Val Val Glu Glu
      225          230          235          240
Ser Asn Gly Ser Asp Glu Met Glu Asn Ser Asp Glu Thr Lys Met Ser
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Glu Glu Ile Leu Ala Leu Val Asp Glu Phe Gln Gln Ala Trp Pro Leu
      260          265          270
Glu Gly Phe Gly Gly Ala Leu Glu Met Lys Gly Arg Arg Leu Asp Leu
      275          280          285
Gln Gly Ile Arg Val Leu Lys Lys Gly Pro Gln Asp Gly Val Ala Arg
      290          295          300
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      325          330          335
Lys Lys Thr Pro Gly Lys Lys Val Glu Thr Gly Gln Ile Glu Asn Gly
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 <212> DNA
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 <212> PRT
 <213> Homo sapiens

<400> 4694
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 35 40 45
 Lys Gly Phe Leu Ala Gly Tyr Val Val Ala Lys Leu Arg Ala Ser Ala
 50 55 60
 Val Leu Gly Phe Ala Val Gly Thr Cys Thr Gly Ile Tyr Ala Ala Gln
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<210> 4695

<211> 2209

<212> DNA

<213> Homo sapiens

<400> 4695

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<211> 302

<212> PRT

<213> Homo sapiens

<400> 4696

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Leu	Leu	Lys	Leu	Ile	Asp	Ala	Glu	Thr	Thr	Ala	Ala	Ala	Trp	Pro	Asn
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Val	Ala	Ala	Val	Ser	Ile	Thr	Gly	Arg	Lys	Arg	Ser	Arg	Val	Ala	Pro
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Pro	Arg	Ser	Xaa	Met	Ala	Leu	Val	Leu	Glu	Arg	Val	Cys	Ser	Thr	Leu
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Gly	Asp	Cys	Gly	Thr	Thr	His	Ser	Arg	Ala	Ala	Arg	Ala	Ile	Gln	Glu
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Trp	Leu	Lys	Glu	Gly	Pro	Pro	Pro	Ala	Ser	Pro	Ala	Gln	Leu	Leu	Ser

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<210> 4697

<211> 1047

<212> DNA

<213> Homo sapiens

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<210> 4698

<211> 182

<212> PRT

<213> Homo sapiens

<400> 4698

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Thr	Asp	Gly	Thr	Val	Phe	Arg	Ile	His	Thr	Lys	Ala	Glu	Gly	Phe	Met
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Asp	Ala	Asp	Ile	Pro	Leu	Glu	Leu	Val	Phe	His	Leu	Pro	Val	Asn	Tyr
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Pro	Ser	Cys	Leu	Pro	Gly	Ile	Ser	Ile	Asn	Ser	Glu	Gln	Leu	Thr	Arg
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Leu	Leu	Ser	Glu	Pro	Met	Val	His	Glu	Leu	Val	Leu	Trp	Ile	Gln	Gln
			85					90					95		
Asn	Leu	Arg	His	Ile	Leu	Ser	Gln	Pro	Glu	Thr	Gly	Ser	Gly	Ser	Glu
	100							105				110			
Lys	Cys	Thr	Phe	Ser	Thr	Ser	Thr	Thr	Met	Asp	Asp	Gly	Leu	Trp	Ile
	115						120					125			
Thr	Leu	Leu	His	Leu	Asp	His	Met	Arg	Ala	Lys	Thr	Lys	Tyr	Val	Lys
	130						135					140			
Ile	Val	Glu	Lys	Trp	Ala	Ser	Asp	Leu	Arg	Leu	Thr	Gly	Arg	Leu	Met
145					150				155					160	
Phe	Met	Gly	Lys	Ile	Ile	Leu	Ile	Leu	Leu	Gln	Gly	Asp	Arg	Asn	Asn
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<210> 4699

<211> 1441

<212> DNA

<213> Homo sapiens

<400> 4699

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180
ataacatagt tcaccacaat gggaccccc ccccttttt ctcaccctac agttagtaat
240

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 420
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 480
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<210> 4700

<211> 116

<212> PRT

<213> Homo sapiens

<400> 4700

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			20					25				30			
Ile	Cys	Cys	Pro	Arg	His	Pro	Leu	Met	Arg	Leu	Lys	Leu	Gly	Pro	Ser

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      35          40          45
Glu Thr Ala Ala Ala Pro Tyr Arg Ala Cys Trp Leu Cys Arg Gly Glu
  50          55          60
Val Asp Asp Lys Gly Thr Arg His Ala Ser Ala Pro Cys Val Arg Ser
  65          70          75          80
Gly Leu Gly His Ser Pro Cys Thr Ser Lys Thr Pro Val Leu Thr Pro
      85          90          95
Thr Ser Lys Glu Leu Leu Leu Leu Ile Cys Lys Ala Ile Leu Leu Leu
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Ser Asn Leu Val
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<210> 4702
 <211> 69
 <212> PRT
 <213> Homo sapiens

<400> 4702
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 20 25 30
 His Xaa Pro Pro Gly His Phe Phe Leu Glu Thr Arg Ser Tyr Ser Leu
 35 40 45
 Ala Lys Asn Gly Val Gln Trp Cys Asn Val Gly Ser Leu Gln Pro Lys
 50 55 60
 Pro Pro Gly Leu Lys
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<210> 4703

<211> 513

<212> DNA

<213> Homo sapiens

<400> 4703

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 180
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 240
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<210> 4704

<211> 112

<212> PRT

<213> Homo sapiens

<400> 4704

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 His Leu Pro Ala Glu Leu Thr Ala Glu Glu Lys Glu Asp Leu Leu Lys
 35 40 45
 Tyr Phe Gly Ala Gln Ser Val Arg Val Leu Ser Asp Lys Gly Arg Leu
 50 55 60
 Lys His Thr Ala Phe Ala Thr Phe Pro Asn Glu Lys Ala Ala Ile Lys
 65 70 75 80
 Ala Leu Thr Arg Leu His Gln Leu Lys Leu Leu Gly His Thr Leu Val
 85 90 95
 Val Glu Phe Ala Lys Glu Gln Asp Arg Val His Ser Pro Cys Pro Thr

100

105

110

<210> 4705

<211> 569

<212> DNA

<213> Homo sapiens

<400> 4705

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 180
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<210> 4706

<211> 154

<212> PRT

<213> Homo sapiens

<400> 4706

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		20						25					30		
Thr	Glu	Leu	Arg	Glu	Tyr	Phe	Lys	Lys	Phe	Gly	Val	Val	Thr	Glu	Val
	35						40					45			
Val	Met	Ile	Tyr	Asp	Ala	Glu	Lys	Gln	Arg	Pro	Arg	Gly	Lys	Gly	Arg
	50					55				60					
Ser	Ser	Leu	Thr	Ser	Ala	Phe	Ser	Leu	Leu	Leu	Pro	Gln	Met	Ala	Asn
65					70					75				80	
Tyr	Leu	Thr	Arg	Gln	Ala	His	Thr	Gly	Gly	Gly	Cys	Ser	Lys	Gln	Pro
			85					90					95		
Gln	Glu	Gly	Thr	Ile	Trp	Arg	Gln	Met	Thr	Lys	Thr	Trp	Ala	Pro	His
	100						105					110			
Val	His	Pro	Ile	Gln	Pro	Val	Cys	Ala	Ser	Arg	Gly	Gln	Thr	Ser	His
	115					120						125			
Ile	Val	Phe	Trp	Leu	Val	Leu	Leu	Lys	Phe	Leu	Arg	Leu	Val	Met	Ser
	130					135						140			
Leu	Gly	Leu	Ala	Ser	Val	Phe	His	Cys	Pro						

145

150

<210> 4707

<211> 748

<212> DNA

<213> Homo sapiens

<400> 4707

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120

gtctttccgg agaccttggt aatttaaate attagcaccg cggccttccc cgaagagtct
180

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240

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360

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420

ctttcccgcg ctggggcgga ccgaacctt ctggtcaggc acctgccggc tgagcttact
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540

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600

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<210> 4708

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4708

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20 25 30

His Leu Pro Ala Glu Leu Thr Ala Glu Glu Lys Glu Asp Leu Leu Lys
35 40 45

Tyr Phe Gly Ala Gln Ser Val Arg Val Leu Ser Asp Lys Gly Arg Leu
50 55 60

Lys His Thr Ala Phe Ala Thr Phe Pro Asn Glu Lys Ala Ala Ile Lys
65 70 75 80

Ala Leu Thr Arg Leu His Gln Leu Lys Leu Leu Gly His Thr Leu Val
85 90 95

Val Glu Phe Ala Lys Glu Gln Asp Arg Val His Ser Pro Cys Pro Thr

	100		105		110
Ser	Gly	Ser	Glu	Lys	Lys
		Lys	Met	Ser	Asp
			Asp	Pro	Val
				Glu	Asp
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	115		120		125

<210> 4709

<211> 1351

<212> DNA

<213> Homo sapiens

<400> 4709

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<211> 304

<212> PRT

<213> Homo sapiens

<400> 4710

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			20					25					30		
Tyr	Gly	Glu	Val	Val	Asp	Cys	Val	Ile	Met	Lys	Asp	Lys	Thr	Thr	Asn
		35					40					45			
Gln	Ser	Arg	Gly	Phe	Gly	Phe	Val	Lys	Phe	Lys	Asp	Pro	Asn	Cys	Val
		50				55					60				
Gly	Thr	Val	Leu	Ala	Ser	Arg	Pro	His	Thr	Leu	Asp	Gly	Arg	Asn	Ile
65					70					75				80	
Asp	Pro	Lys	Pro	Cys	Thr	Pro	Arg	Gly	Met	Gln	Pro	Glu	Arg	Thr	Arg
			85						90					95	
Pro	Lys	Glu	Gly	Trp	Gln	Lys	Gly	Pro	Arg	Ser	Asp	Asn	Ser	Lys	Ser
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		115					120					125			
Leu	Arg	Glu	Tyr	Phe	Lys	Lys	Phe	Gly	Val	Val	Thr	Glu	Val	Val	Met
		130					135					140			
Ile	Tyr	Asp	Ala	Glu	Lys	Gln	Arg	Pro	Arg	Gly	Phe	Gly	Phe	Ile	Thr
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Phe	Glu	Asp	Glu	Gln	Ser	Val	Asp	Gln	Ala	Val	Asn	Met	His	Phe	His
			165						170					175	
Asp	Ile	Met	Gly	Lys	Lys	Val	Glu	Val	Lys	Arg	Ala	Glu	Pro	Arg	Asp
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Gln	Ala	Ile	Gly	Gly	Tyr	Gly	Pro	Pro	Pro	Ala	Gly	Arg	Gly	Ala	Pro
			245						250					255	
Pro	Pro	Pro	Pro	Pro	Phe	Thr	Ser	Tyr	Ile	Val	Ser	Thr	Pro	Pro	Gly
			260					265					270		
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<210> 4711

<211> 2061

<212> DNA

<213> Homo sapiens

<400> 4711

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1620

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<210> 4712

<211> 187

<212> PRT

<213> Homo sapiens

<400> 4712

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			20					25					30		
Val	Gly	Ser	Gly	Ser	Arg	Glu	Leu	Ser	Leu	Arg	Pro	Ser	Arg	Ser	Gly
		35					40					45			
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<212> DNA

<213> Homo sapiens

<400> 4713

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<210> 4714

<211> 145

<212> PRT

<213> Homo sapiens

<400> 4714

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<212> PRT

<213> Homo sapiens

<400> 4716

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Ala	Leu	Arg	Val	Thr	Leu	Lys	Gln	Asp	Thr	His	Gly	Val	Gly	His	Asp
			20					25					30		
Pro	Ala	Lys	Glu	Phe	Thr	Asn	His	Trp	Trp	Asn	Glu	Leu	Phe	Asn	Lys

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<213> Homo sapiens
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<210> 4718

<211> 259

<212> PRT

<213> Homo sapiens

<400> 4718

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		20					25						30		
Asn	Leu	Asp	Ala	Phe	Asn	Glu	Arg	Asp	Pro	Tyr	Lys	Ala	Asp	Asp	Ser
	35					40					45				
Arg	Glu	Glu	Glu	Glu	Glu	Asn	Asp	Asp	Asp	Asn	Ser	Leu	Glu	Gly	Glu
	50					55					60				
Thr	Phe	Pro	Leu	Glu	Arg	Asp	Glu	Val	Met	Pro	Pro	Pro	Leu	Gln	His
65				70					75					80	
Pro	Gln	Thr	Asp	Arg	Leu	Thr	Cys	Pro	Lys	Gly	Leu	Pro	Trp	Ala	Pro
		85						90						95	
Lys	Val	Arg	Glu	Lys	Asp	Ile	Glu	Met	Phe	Leu	Glu	Ser	Ser	Arg	Ser
		100					105						110		
Lys	Phe	Ile	Gly	Tyr	Thr	Leu	Gly	Ser	Asp	Thr	Asn	Thr	Val	Val	Gly
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Leu	Pro	Arg	Pro	Ile	His	Glu	Ser	Ile	Lys	Thr	Leu	Lys	Gln	His	Lys
	130					135					140				
Tyr	Thr	Ser	Ile	Ala	Glu	Val	Gln	Ala	Gln	Met	Lys	Glu	Glu	Tyr	Leu
145				150					155					160	
Arg	Ser	Pro	Leu	Ser	Gly	Gly	Glu	Glu	Glu	Val	Glu	Gln	Val	Pro	Ala
		165					170						175		
Glu	Thr	Leu	Tyr	Gln	Gly	Leu	Leu	Pro	Ser	Leu	Pro	Gln	Tyr	Met	Ile
	180					185						190			
Ala	Leu	Leu	Lys	Ile	Leu	Leu	Ala	Ala	Ala	Pro	Thr	Ser	Lys	Ala	Lys
	195					200					205				
Thr	Asp	Ser	Ile	Asn	Ile	Leu	Ala	Asp	Val	Leu	Pro	Glu	Glu	Met	Pro
	210					215					220				
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225				230					235					240	
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Lys His Phe

<210> 4719
 <211> 589
 <212> DNA
 <213> Homo sapiens

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<210> 4720
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 35 40 45
 Ile Arg Lys Asn Phe Asp Glu Ala Ala Lys Val Leu Lys Phe Asn Cys
 50 55 60
 Glu Glu Asn Gln His Ser Asp Ser Cys Tyr Lys Leu Gly Ala Tyr Tyr
 65 70 75 80
 Val Thr Gly Lys Gly Gly Leu Thr Gln Asp Leu Lys Ala Ala Ala Arg
 85 90 95
 Cys Phe Leu Met Ala Cys Glu Lys Pro Gly Lys Lys Ser Ile Ala Ala
 100 105 110
 Cys His Asn Val Gly Leu Leu Ala His Asp Gly Gln Val Asn Glu Asp
 115 120 125
 Gly Gln Pro Asp Leu Gly Lys Ala Arg Asp Tyr Tyr Thr Arg Ala Cys

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145		150		155
Gln Gly Ala Pro Gly Phe Pro Lys Asp Met Asp Leu Ala Cys Lys Tyr				160
	165		170	175
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<210> 4721

<211> 1385

<212> DNA

<213> Homo sapiens

<400> 4721

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<210> 4722

<211> 285

<212> PRT

<213> Homo sapiens

<400> 4722

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		20						25					30		
Leu	Leu	His	Gly	Thr	Pro	Asp	Gln	Lys	Arg	Lys	Leu	Ile	Arg	Glu	Cys
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Ser	Ser	Leu	Gly	Thr	Gly	Ser	Ser	Ser	Gly	Asn	Gly	Lys	Val	Ala	Thr
				85					90					95	
Ala	Pro	Thr	Arg	Tyr	Tyr	Asp	Asp	Ile	Tyr	Phe	Asp	Ser	Asp	Ser	Glu
			100					105					110		
Asp	Glu	Asp	Arg	Ala	Val	Gln	Val	Thr	Lys	Lys	Lys	Lys	Lys	Lys	Gln
		115					120						125		
His	Lys	Ile	Pro	Thr	Asn	Asp	Glu	Leu	Leu	Tyr	Asp	Pro	Glu	Lys	Asp
		130				135					140				
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			165						170					175	
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Gln	Arg	His	Glu	Ser	Tyr	Lys	Thr	Gln	Tyr	Arg	Ala	Met	Phe	Val	Met
		195					200						205		
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		210				215					220				
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<211> 1213
<212> DNA
<213> Homo sapiens

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<210> 4724
<211> 54
<212> PRT
<213> Homo sapiens

<400> 4724

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<210> 4725

<211> 366

<212> DNA

<213> Homo sapiens

<400> 4725

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 240
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<210> 4726

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4726

Xaa Phe Leu Glu Gly Glu Leu Gly Arg Ser Arg Arg Thr Pro Ala Gly
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 Gly Arg Gly Ala Met Leu Ala Ile Asp Thr Ala Ser Asp Ile Leu Ala
 20 25 30
 His Val His Val Tyr Ser Arg Leu Cys Ala Cys Ala Arg Val Tyr Met
 35 40 45
 His Met Cys Thr Gly Ala Cys Ala Cys Val Asn Thr Cys Ser His Val
 50 55 60
 Cys Thr Cys Xaa Ser Cys Pro Cys Xaa Tyr Val His Thr Cys Leu Cys
 65 70 75 80
 Met His Ala Cys Ile Ala Val Cys Pro Tyr Pro His Val Arg Ile His
 85 90 95
 Met Arg Leu Cys Leu His Leu Cys Met His Ala Ser Val Leu Leu Arg
 100 105 110
 Ala Trp Val Cys Ile Cys Ala Cys Thr Arg
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<210> 4727

<211> 2031

<212> DNA

<213> Homo sapiens

<400> 4727

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240
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<210> 4728

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4728

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 20 25 30
 Gln Trp Asp Ser Asp Glu Pro Ile Pro Ala Lys Glu Leu Glu Arg Gly
 35 40 45
 Val Ala Gly Ala His Gly Leu Leu Cys Leu Leu Ser Asp His Val Asp
 50 55 60
 Lys Arg Ile Leu Asp Ala Ala Gly Ala Asn Leu Lys Val Ile Ser Thr
 65 70 75 80
 Met Ser Val Gly Ile Asp His Leu Ala Leu Asp Glu Ile Lys Lys Arg
 85 90 95
 Gly Ile Arg Val Gly Tyr Thr Pro Asp Val Leu Thr Asp Thr Thr Ala
 100 105 110
 Glu Leu Ala Val Ser Leu Leu Leu Thr Thr Cys Arg Arg Leu Pro Glu
 115 120 125
 Ala Ile Glu Glu Val Lys Asn Gly Gly Trp Thr Ser Trp Lys Pro Leu
 130 135 140
 Trp Leu Cys Gly Tyr Gly Leu Thr Gln Ser Thr Val Gly Ile Ile Gly
 145 150 155 160
 Leu Gly Arg Ile Gly Gln Ala Ile Ala Arg Arg Leu Lys Pro Phe Gly
 165 170 175
 Val Gln Arg Phe Leu Tyr Thr Gly Arg Gln Pro Arg Pro Glu Glu Ala
 180 185 190
 Ala Glu Phe Gln Ala Glu Phe Val Ser Thr Pro Glu Leu Ala Ala Gln
 195 200 205
 Ser Asp Phe Ile Val Val Ala Cys Ser Leu Thr Pro Ala Thr Glu Gly

210	215	220
Leu Cys Asn Lys Asp Phe Phe Gln Lys Met Lys Glu Thr Ala Val Phe		
225	230	235
Ile Asn Ile Ser Arg Gly Asp Val Val Asn Gln Asp Asp Leu Tyr Gln		240
	245	250
Ala Leu Ala Ser Gly Lys Ile Ala Ala Ala Gly Leu Asp Val Thr Ser		255
	260	265
Pro Glu Pro Leu Pro Thr Asn His Pro Leu Leu Thr Leu Lys Asn Cys		270
	275	280
Val Ile Leu Pro His Ile Gly Ser Ala Thr His Arg Thr Arg Asn Thr		285
	290	295
Met Ser Leu Leu Ala Ala Asn Asn Leu Leu Ala Gly Leu Arg Gly Glu		300
305	310	315
Pro Met Pro Ser Glu Leu Lys Leu		320
	325	

<210> 4729

<211> 753

<212> DNA

<213> Homo sapiens

<400> 4729

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 120
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 180
 gaaacccact gaagacgtct gcgtgagaat agagaccacc gaggccgact cgcggggccgc
 240
 tgcaccacc gccaggaca aaaggagccc agcgtacta gctgcaccgc attcctccca
 300
 gtgcttagca tgaagaagc cgaaatggga cgattcagta tttccccgga tgaagacagc
 360
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 420
 aaaagccatt atgcagatgt agatcctgaa aaccagaact ttttacttga atcgaatttg
 480
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 600
 aatactggaa ttgctctttt tataattctc ttgacatttg tgtcaatatt ttcctgtat
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<210> 4730

<211> 148

<212> PRT

<213> Homo sapiens

<400> 4730

Met Lys Lys Ala Glu Met Gly Arg Phe Ser Ile Ser Pro Asp Glu Asp
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 20 25 30
 Lys Gln Ala Ala Leu Lys Ser His Tyr Ala Asp Val Asp Pro Glu Asn
 35 40 45
 Gln Asn Phe Leu Leu Glu Ser Asn Leu Gly Lys Lys Lys Tyr Glu Thr
 50 55 60
 Glu Phe His Pro Gly Thr Thr Ser Phe Gly Met Ser Val Phe Asn Leu
 65 70 75 80
 Ser Asn Ala Ile Val Gly Ser Gly Ile Leu Gly Leu Ser Tyr Ala Met
 85 90 95
 Ala Asn Thr Gly Ile Ala Leu Phe Ile Ile Leu Leu Thr Phe Val Ser
 100 105 110
 Ile Phe Ser Leu Tyr Ser Val His Leu Leu Leu Lys Thr Ala Asn Glu
 115 120 125
 Gly Gly Ser Leu Leu Tyr Glu Gln Leu Gly Tyr Lys Ala Ser Gly Leu
 130 135 140
 Val Gly Lys Leu
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<210> 4731

<211> 2417

<212> DNA

<213> Homo sapiens

<400> 4731

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 120
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 180
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 240
 aagtaacagg acagatttct ccagcaaat cagtctccac aaccaaata gaattgttct
 300
 ccaaggagtc aagctataga ctcaaatga caacgtggcc atggetcaaa acactctctg
 360
 aaattacaaa attgctttct gagccaattt aaaagtcaca tgattgaatc caagctattt
 420
 tactttaaat ggtccttttg ctttgacact gagacctcgc ttggccacag acgtcattcg
 480
 ctggactccc tgggcactaa atgagtgtct agcatcctta aggtgctca acacacagcc
 540
 ccagactctg aatatgattc caagaaatat tctgaaaaaa gtcacatcgc tggataaac
 600
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 660
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 720
 aagaaagtag gcatgatcac tgggtcggtt cccaagccac cctcaccctc caagaaggca
 780

tgaatggaac aaccccagaga acagagcacg tgtgaagaac caacacgaca ggcacgggat
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900
agcgcaggca gggaagggtg caccaaaacc tagtaagaac aaagcaaac caccgtggtt
960
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2160
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2280
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2400

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2417

<210> 4732
<211> 129
<212> PRT
<213> Homo sapiens

<400> 4732
Met Ser Ile Ser Arg Ala Val Leu Gly Glu Lys Glu Gly Gly Leu Gly
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Ser Val Ala Pro Cys Gln Pro Ala Leu Arg Glu Asp Arg Val Ser His
20 25 30
Ala Arg Met Ala Gly His Val Ser Val Leu Val Ser His Phe Pro Pro
35 40 45
Ser Val Thr Tyr Leu Gly Ile Pro Gln Gly Leu Leu Glu Cys Asp Cys
50 55 60
Pro Leu Pro Ser Cys Leu Gly Tyr Lys Ser Trp Pro Tyr Val Pro Ala
65 70 75 80
Val Arg Gly Ser Gly Asn Pro Thr Gln Pro Pro Val Leu Gly Trp Ser
85 90 95
Val Ser Ile His Pro Leu Val Val Ile Glu Ala Ala Leu Pro Val Leu
100 105 110
Gly Glu Asp Ile Trp Ala Thr Arg Ala Pro Leu Ala Pro Ser Arg Arg
115 120 125
Lys

<210> 4733
<211> 543
<212> DNA
<213> Homo sapiens

<400> 4733
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180
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240
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300
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360
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420
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540
tgg
543

<210> 4734
 <211> 181
 <212> PRT
 <213> Homo sapiens

<400> 4734
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 Val Glu Gly Leu Ser Gly Arg Arg Asp Pro Leu Gly Asp Pro Thr Met
 20 25 30
 Phe Phe Tyr Leu Ser Lys Lys Ile Ser Ile Pro Asn Asn Val Lys Leu
 35 40 45
 Gln Cys Val Ser Trp Asn Lys Glu Gln Gly Phe Ile Ala Cys Gly Gly
 50 55 60
 Glu Asp Gly Leu Leu Lys Val Leu Lys Leu Glu Thr Gln Thr Asp Asp
 65 70 75 80
 Ala Lys Leu Arg Gly Leu Ala Ala Pro Ser Asn Leu Ser Met Asn Gln
 85 90 95
 Thr Leu Glu Gly His Ser Gly Ser Val Gln Val Val Thr Trp Asn Glu
 100 105 110
 Gln Tyr Gln Lys Leu Thr Thr Ser Asp Glu Asn Gly Leu Ile Ile Val
 115 120 125
 Trp Met Leu Tyr Lys Gly Ser Trp Ile Glu Glu Met Ile Asn Asn Arg
 130 135 140
 Asn Lys Ser Val Val Arg Ser Met Ser Trp Asn Ala Asp Gly Gln Lys
 145 150 155 160
 Ile Cys Ile Val Tyr Glu Asp Gly Ala Val Ile Val Gly Ser Val Asp
 165 170 175
 Gly Asn Arg Ile Trp
 180

<210> 4735
 <211> 300
 <212> DNA
 <213> Homo sapiens

<400> 4735
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 120
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 180
 cgtgtcccag gcaaaagcct cagctttgca gcagcagcag tactaccagt ggtaccagca
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 300

<210> 4736
 <211> 93
 <212> PRT
 <213> Homo sapiens

<400> 4736

Met Val Ala Gly Ala Gly Arg Glu Asn Gly Met Glu Thr Pro Met His
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 Glu Asn Pro Glu Trp Glu Lys Ala Arg Gln Ala Leu Ala Ser Ile Ser
 20 25 30
 Lys Ser Gly Ala Ala Gly Gly Ser Ala Lys Ser Ser Ser Asn Gly Pro
 35 40 45
 Val Ala Ser Ala Gln Tyr Val Ser Gln Ala Lys Ala Ser Ala Leu Gln
 50 55 60
 Gln Gln Gln Tyr Tyr Gln Trp Tyr Gln Gln Asp Asn Tyr Ala Tyr Pro
 65 70 75 80
 Tyr Ser Tyr Tyr Tyr Pro Met Pro Pro Gly Pro Gly Met
 85 90

<210> 4737

<211> 2602

<212> DNA

<213> Homo sapiens

<400> 4737

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 180
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 240
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 300
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 360
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 420
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1080
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1260
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1620
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1680
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1920
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1980
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2100
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2280
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2460
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2580
aaaaaaaaaa aaaaaaaaaa aa
2602

<210> 4738
 <211> 756
 <212> PRT
 <213> Homo sapiens

<400> 4738
 Met Ala Pro Thr Trp Leu Ser Asp Ile Pro Leu Val Gln Pro Pro Gly
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 His Gln Asp Val Ser Glu Arg Arg Leu Asp Thr Gln Arg Pro Gln Val
 20 25 30
 Thr Met Trp Glu Arg Asp Val Ser Asp Arg Gln Glu Pro Gly Arg
 35 40 45
 Arg Gly Arg Ser Trp Gly Leu Glu Gly Ser Gln Ala Leu Ser Gln Gln
 50 55 60
 Ala Glu Val Ile Val Arg Gln Leu Gln Glu Leu Arg Arg Leu Glu Glu
 65 70 75 80
 Glu Val Arg Leu Leu Arg Glu Thr Ser Leu Gln Gln Lys Met Arg Leu
 85 90 95
 Glu Ala Gln Ala Met Glu Leu Glu Ala Leu Ala Arg Ala Glu Lys Ala
 100 105 110
 Gly Arg Ala Glu Ala Glu Gly Leu Arg Ala Ala Leu Ala Gly Ala Glu
 115 120 125
 Val Val Arg Lys Asn Leu Glu Gly Arg Gln Arg Glu Leu Glu Glu
 130 135 140
 Val Gln Arg Leu His Gln Glu Gln Leu Ser Ser Leu Thr Gln Ala His
 145 150 155 160
 Glu Glu Ala Leu Ser Ser Leu Thr Ser Lys Ala Glu Gly Leu Glu Lys
 165 170 175
 Ser Leu Ser Ser Leu Glu Thr Arg Arg Ala Gly Glu Ala Lys Glu Leu
 180 185 190
 Ala Glu Ala Gln Arg Glu Ala Glu Leu Leu Arg Lys Gln Leu Ser Lys
 195 200 205
 Thr Gln Glu Asp Leu Glu Ala Gln Val Thr Leu Val Glu Asn Leu Arg
 210 215 220
 Lys Tyr Val Gly Glu Gln Val Pro Ser Glu Val His Ser Gln Thr Trp
 225 230 235 240
 Glu Leu Glu Arg Gln Lys Leu Leu Glu Thr Met Gln Leu Leu Gln Glu
 245 250 255
 Asp Arg Asp Ser Leu His Ala Thr Ala Glu Leu Leu Gln Val Arg Val
 260 265 270
 Gln Ser Leu Thr His Ile Leu Ala Leu Gln Glu Glu Glu Leu Thr Arg
 275 280 285
 Lys Val Gln Pro Ser Asp Ser Leu Glu Pro Glu Phe Thr Arg Lys Cys
 290 295 300
 Gln Ser Leu Leu Asn Arg Trp Arg Glu Lys Val Phe Ala Leu Met Val
 305 310 315 320
 Gln Leu Lys Ala Gln Glu Leu Glu His Ser Asp Ser Val Lys Gln Leu
 325 330 335
 Lys Gly Gln Val Ala Ser Leu Gln Glu Lys Val Thr Ser Gln Ser Gln
 340 345 350
 Glu Gln Ala Ile Leu Gln Arg Ser Leu Gln Asp Lys Ala Ala Glu Val
 355 360 365
 Glu Val Glu Arg Met Gly Ala Lys Gly Leu Gln Leu Glu Leu Ser Arg

370	375	380
Ala Gln Glu Ala Arg Arg Trp Trp Gln Gln Gln Thr Ala Ser Ala Glu		
385	390	395
Glu Gln Leu Arg Leu Val Val Asn Ala Val Ser Ser Ser Gln Ile Trp		400
	405	410
Leu Glu Thr Thr Met Ala Lys Val Glu Gly Ala Ala Ala Gln Leu Pro		415
	420	425
Ser Leu Asn Asn Arg Leu Ser Tyr Ala Val Arg Lys Val His Thr Ile		430
	435	440
Arg Gly Leu Ile Ala Arg Lys Leu Ala Leu Ala Gln Leu Arg Gln Glu		445
	450	455
Ser Cys Pro Leu Pro Pro Val Thr Asp Val Ser Leu Glu Leu Gln		460
465	470	475
Gln Leu Arg Glu Glu Arg Asn Arg Leu Asp Ala Glu Leu Gln Leu Ser		480
	485	490
Ala Arg Leu Ile Gln Gln Glu Val Gly Arg Ala Arg Glu Gln Gly Glu		495
	500	505
Ala Glu Arg Gln Gln Leu Ser Lys Val Ala Gln Gln Leu Glu Gln Glu		510
	515	520
Leu Gln Gln Thr Gln Glu Ser Leu Ala Ser Leu Gly Leu Gln Leu Glu		525
	530	535
Val Ala Arg Gln Gly Gln Gln Glu Ser Thr Glu Glu Ala Ala Ser Leu		540
545	550	555
Arg Gln Glu Leu Thr Gln Gln Gln Glu Leu Tyr Gly Gln Ala Leu Gln		560
	565	570
Glu Lys Val Ala Glu Val Glu Thr Arg Leu Arg Glu Gln Leu Ser Asp		575
	580	585
Thr Glu Arg Arg Leu Asn Glu Ala Arg Arg Glu His Ala Lys Ala Val		590
	595	600
Val Ser Leu Arg Gln Ile Gln Arg Arg Ala Ala Gln Glu Lys Glu Arg		605
	610	615
Ser Gln Glu Leu Arg Arg Leu Gln Glu Glu Ala Arg Lys Glu Glu Gly		620
625	630	635
Gln Arg Leu Ala Arg Arg Leu Gln Glu Leu Glu Arg Asp Lys Asn Leu		640
	645	650
Met Leu Ala Thr Leu Gln Gln Glu Gly Leu Leu Ser Arg Tyr Lys Gln		655
	660	665
Gln Arg Leu Leu Thr Val Leu Pro Ser Leu Leu Asp Lys Lys Ser		670
	675	680
Val Val Ser Ser Pro Arg Pro Pro Glu Cys Ser Ala Ser Ala Pro Val		685
	690	695
Ala Ala Ala Val Pro Thr Arg Glu Ser Ile Lys Gly Ser Leu Ser Val		700
705	710	715
Leu Leu Asp Asp Leu Gln Asp Leu Ser Glu Ala Ile Ser Lys Glu Glu		720
	725	730
Ala Val Cys Gln Gly Asp Asn Leu Asp Arg Cys Ser Ser Ser Asn Pro		735
	740	745
Gln Met Ser Ser		750
755		

<210> 4739

<211> 684

<212> DNA

<213> Homo sapiens

<400> 4739

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 ggaagacttg accagtcttg gtgatgagaa ggccttcacc ctatgaacac aaccaagtct
 120
 tagccctctc tcctgctcct ttaaactctg aacttctagg atggggagaat gggaactttt
 180
 gcaggttgag attcatagtg aaatcgggtc aagaagtgat cagatgcaaa gcacagggca
 240
 gttcattact ataccatggc tgaggtcttc ctgggcacca ggccttgggc tcagcacttg
 300
 gctcagtctg caccttggac cctgccagag cctccacag caggtgctct caggcaaggc
 360
 tgtgtgttgc tggccagacg ccttctgacc agcgtgcttt cttgaccaca gatcccttgg
 420
 ccaagcagga gggaaccatt agcagcctga ggagctggct ggctggggagc ctcggggacc
 480
 gccagcctt gctccagct caccacaag atgtggacag ctcttgtgct catttggatt
 540
 ttctccttgt ccttatctga aagccatgcg gcatccaacg atccacgtaa gtgagaaagc
 600
 tgtgtgactg ctggatgggc ccacggtggc caciaagcat gctgagccct tgaaagcagc
 660
 atctgcaaac ccaggccaac gcgt
 684

<210> 4740

<211> 119

<212> PRT

<213> Homo sapiens

<400> 4740

Met	Leu	Leu	Ser	Arg	Ala	Gln	His	Ala	Leu	Trp	Pro	Pro	Trp	Ala	His
1				5					10					15	
Pro	Ala	Val	Thr	Gln	Leu	Ser	His	Leu	Arg	Gly	Ser	Leu	Asp	Ala	Ala
			20						25				30		
Trp	Leu	Ser	Asp	Lys	Asp	Lys	Glu	Lys	Ile	Gln	Met	Ser	Thr	Arg	Ala
		35					40					45			
Val	His	Ile	Leu	Trp	Val	Ser	Trp	Glu	Gln	Gly	Trp	Ala	Val	Pro	Glu
	50					55					60				
Ala	Pro	Ser	Gln	Pro	Ala	Pro	Gln	Ala	Ala	Asn	Gly	Ser	Leu	Leu	Leu
65				70					75					80	
Gly	Gln	Gly	Ile	Cys	Gly	Gln	Glu	Ser	Thr	Leu	Val	Arg	Arg	Arg	Leu
			85					90					95		
Ala	Ser	Asn	Thr	Gln	Pro	Cys	Leu	Arg	Ala	Pro	Ala	Val	Glu	Gly	Ser
			100					105					110		
Gly	Arg	Val	Gln	Gly	Ala	Asp									

<210> 4741

<211> 411

<212> DNA

<213> Homo sapiens

<400> 4741

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 ttttttctta aaaaaaaaaa aggggttttt ctttgcccc cccgttcccc ccccttcccc
 120
 ttccgaaaaa aagaggggaa ttttttaaaa aaccogaaaag gggggaagg ggggggtata
 180
 aaagataaaa tttgggtttt tgggggggaa aatttggaaca cccaccctc gggttttttt
 240
 tccccacccc aaaaaatttt aaaagggggc cctaaaaaaa attttttctt taatttccaa
 300
 ataaaaaaa aatgggggttc caaaatcatt gaaaaatagg ggggactcca aaaccttgaa
 360
 ttttccaag ggggaccact aaaatttacc ctttttttg ggttttgggg g
 411

<210> 4742

<211> 109

<212> PRT

<213> Homo sapiens

<400> 4742

Met	Ile	Leu	Glu	Pro	His	Phe	Phe	Phe	Ile	Trp	Lys	Leu	Lys	Lys	Lys
1				5					10				15		
Phe	Phe	Leu	Gly	Pro	Pro	Phe	Lys	Ile	Phe	Trp	Gly	Gly	Glu	Lys	Lys
			20				25					30			
Pro	Glu	Gly	Gly	Val	Ser	Lys	Phe	Ser	Pro	Pro	Lys	Asn	Gln	Ile	Leu
		35				40					45				
Ser	Phe	Ile	Pro	Pro	Pro	Phe	Pro	Phe	Gly	Phe	Phe	Lys	Lys	Phe	
	50					55			60						
Pro	Ser	Phe	Phe	Arg	Lys	Gly	Lys	Gly	Gly	Glu	Arg	Gly	Gly	Gln	Arg
65				70				75						80	
Lys	Thr	Pro	Phe	Phe	Phe	Leu	Arg	Lys	Lys	Arg	Glu	Lys	Lys	Lys	Lys
			85				90						95		
Lys	Glu	Arg	Lys	Thr	Pro	Val	Asp	Leu	Arg	Glu	Val	Asn			
			100					105							

<210> 4743

<211> 473

<212> DNA

<213> Homo sapiens

<400> 4743

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 60
 caaccggccc cacaattct agcagtgcc aagaagaagga taaaagagtt caagggtgaa
 120
 gaggattga gtcccggtat ctgcagtatg aaaagaagac aacccaaaag gctcctgcag
 180
 gagatgggtc acagaccga ggaagatgt ctgaagggtg aaggaaatcc agcctgctcc
 240
 agaaaagcaa agcagatagc agtggggctg gaaaggggtg cctgcagtcc acgttgctgg
 300

aagggcatgg cacagctcca cctgacctgg atctctctgc tattaatgac aaaagcatcg
 360
 tcaaaaagac gccacagtta gcaaaaacaa tatcaaagaa acctgagtca acatcatttt
 420
 ctgcccctcg gaaaaagagc ccggatttat ctgaagcgaa tggaatgatg gag
 473

<210> 4744

<211> 150

<212> PRT

<213> Homo sapiens

<400> 4744

Met	Ala	Asp	Ser	Ser	Gly	Arg	Gly	Ala	Gly	Lys	Pro	Ala	Thr	Gly	Pro
1				5					10					15	
Thr	Asn	Ser	Ser	Ser	Ala	Lys	Lys	Lys	Asp	Lys	Arg	Val	Gln	Gly	Gly
		20					25						30		
Arg	Val	Ile	Glu	Ser	Arg	Tyr	Leu	Gln	Tyr	Glu	Lys	Lys	Thr	Thr	Gln
	35					40					45				
Lys	Ala	Pro	Ala	Gly	Asp	Gly	Ser	Gln	Thr	Arg	Gly	Lys	Met	Ser	Glu
	50				55					60					
Gly	Gly	Arg	Lys	Ser	Ser	Leu	Leu	Gln	Lys	Ser	Lys	Ala	Asp	Ser	Ser
65				70					75					80	
Gly	Val	Gly	Lys	Gly	Asp	Leu	Gln	Ser	Thr	Leu	Leu	Glu	Gly	His	Gly
			85					90						95	
Thr	Ala	Pro	Pro	Asp	Leu	Asp	Leu	Ser	Ala	Ile	Asn	Asp	Lys	Ser	Ile
		100						105						110	
Val	Lys	Lys	Thr	Pro	Gln	Leu	Ala	Lys	Thr	Ile	Ser	Lys	Lys	Pro	Glu
		115					120					125			
Ser	Thr	Ser	Phe	Ser	Ala	Pro	Arg	Lys	Lys	Ser	Pro	Asp	Leu	Ser	Glu
	130					135					140				
Ala	Asn	Gly	Met	Met	Glu										
145					150										

<210> 4745

<211> 666

<212> DNA

<213> Homo sapiens

<400> 4745

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 gacgagctgg atcaccttgg tgaagttcag acggaatcag caggaattca gcgtgcacag
 120
 attcagaaag aactttggcg aattcaggat gtcattggaag ggctgagtaa acataagcag
 180
 caaagaggta ctacagaaat aggtatgata ggatcaaagc ctttctcaac agttaagtac
 240
 aaaaatgagg gtccagatta tagactctac aagagtgaac cagagttaac aacagtggca
 300
 gaagttgatg aatctaattg agaagaaaaa tcagaacctg tttcagagat agaaacttca
 360
 gttgttaaag gttcccactt tctgttgga gtagtcctc caagagcaaa atcaccaaca
 420

cccgaatctt cgacaatagc ttcctatgta accttgagga aaactaagaa gatgatggat
480
ctaagaacgg aaagaccaag aagtgcagtg gaacagctct gtttggtga aagtactga
540
ccaaggatga ctgtggaaga gcaaatggaa agaataagaa gatatacaaca agcgtgctg
600
aggagaaga aaaaagggtt aaatgttatc ggtgcttcag accagtcacc cttacaaagc
660
ccttaa
666

<210> 4746

<211> 221

<212> PRT

<213> Homo sapiens

<400> 4746

Ala	Trp	Arg	Glu	Tyr	Asp	Lys	Leu	Glu	Tyr	Asp	Val	Thr	Val	Thr	Arg
1			5					10					15		
Asn	Gln	Met	Gln	Glu	Gln	Leu	Asp	His	Leu	Gly	Glu	Val	Gln	Thr	Glu
			20				25						30		
Ser	Ala	Gly	Ile	Gln	Arg	Ala	Gln	Ile	Gln	Lys	Glu	Leu	Trp	Arg	Ile
		35				40						45			
Gln	Asp	Val	Met	Glu	Gly	Leu	Ser	Lys	His	Lys	Gln	Gln	Arg	Gly	Thr
	50					55					60				
Thr	Glu	Ile	Gly	Met	Ile	Gly	Ser	Lys	Pro	Phe	Ser	Thr	Val	Lys	Tyr
65					70					75					80
Lys	Asn	Glu	Gly	Pro	Asp	Tyr	Arg	Leu	Tyr	Lys	Ser	Glu	Pro	Glu	Leu
			85						90					95	
Thr	Thr	Val	Ala	Glu	Val	Asp	Glu	Ser	Asn	Gly	Glu	Glu	Lys	Ser	Glu
			100					105					110		
Pro	Val	Ser	Glu	Ile	Glu	Thr	Ser	Val	Val	Lys	Gly	Ser	His	Phe	Pro
		115					120					125			
Val	Gly	Val	Val	Pro	Pro	Arg	Ala	Lys	Ser	Pro	Thr	Pro	Glu	Ser	Ser
		130				135					140				
Thr	Ile	Ala	Ser	Tyr	Val	Thr	Leu	Arg	Lys	Thr	Lys	Lys	Met	Met	Asp
145					150					155					160
Leu	Arg	Thr	Glu	Arg	Pro	Arg	Ser	Ala	Val	Glu	Gln	Leu	Cys	Leu	Ala
			165						170					175	
Glu	Ser	Thr	Arg	Pro	Arg	Met	Thr	Val	Glu	Glu	Gln	Met	Glu	Arg	Ile
		180					185					190			
Arg	Arg	Tyr	Gln	Gln	Ala	Cys	Leu	Arg	Glu	Lys	Lys	Lys	Gly	Leu	Asn
		195					200					205			
Val	Ile	Gly	Ala	Ser	Asp	Gln	Ser	Pro	Leu	Gln	Ser	Pro			
		210					215					220			

<210> 4747

<211> 1091

<212> DNA

<213> Homo sapiens

<400> 4747

ncatgccagg cggaagtcac aactgcatcc gcacgtgggc tcggcgcgat ggaggaggag
60

accgatactg acgccaaaat ccgtgctgaa aatggaacag ggtccagccc tcggggctcct
 120
 ggctgcagcc tccggcactt tgctgcgaa cagaacctgc tgcgcggcc agatggctct
 180
 gcttccttcc tgcaaggatga cacctctgtc ctggcgggtg tgtacgggcc ggccgaggtg
 240
 aaggtcagca aagagatttt caacaaggcc acactcgaag tgatcctgag gccgaagatt
 300
 gggctgcctg caggggtcag tggatggcag tcaggccttg ccttcttccc actggaatct
 360
 tccatcatcc ctgcagggtg tgcaagagaag agccgggagc ggctgatcag gaacacgtgc
 420
 gaggcgggtg tgctgggcac gttgcacccc cgcacctcca tcaccgtggt gctgcaggtt
 480
 gtcagcgatg ccggctctct cctggcctgt tgtctgaatg ccgcctgcat ggcattggtg
 540
 gatgcaggtg tgcccatgcg ggctctcttc tgtggggtcg cctgcgcctt ggactctgat
 600
 gggaccctcg tgctggatcc tacatccaag caagaaaagg aggcccgggc agtcctgacc
 660
 ttgcccctgg acagcgtgga acggaagctg ctgatgtcca gcaccaaggg gctctactca
 720
 gacactgagc tccagcagtg cctggctgcg gcccaggccg ctcgcaaca cgtcttcctg
 780
 ttctaccggg aatcgtgca gaggcgttac tccaagagct gaggcaagct ggggcaaggg
 840
 gccgctccca ttgcctccac ccactcacc cctacagcct gaagcaaacc agcagcccag
 900
 ccttgccctc ctgacccatg ggctccttga gctgcagct ctgtaaccac agggctcctg
 960
 tggggaggcc ttggcctgtg acagccccc ggcctggggg cacagatccc cccagcaagg
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 1080
 aaaaaaaaaa a
 1091

<210> 4748

<211> 273

<212> PRT

<213> Homo sapiens

<400> 4748

Xaa	Cys	Gln	Ala	Glu	Val	Thr	Thr	Ala	Ser	Ala	Arg	Gly	Leu	Gly	Ala
1				5				10					15		
Met	Glu	Glu	Glu	Thr	His	Thr	Asp	Ala	Lys	Ile	Arg	Ala	Glu	Asn	Gly
		20					25					30			
Thr	Gly	Ser	Ser	Pro	Arg	Gly	Pro	Gly	Cys	Ser	Leu	Arg	His	Phe	Ala
		35				40					45				
Cys	Glu	Gln	Asn	Leu	Leu	Ser	Arg	Pro	Asp	Gly	Ser	Ala	Ser	Phe	Leu
	50				55				60						
Gln	Gly	Asp	Thr	Ser	Val	Leu	Ala	Gly	Val	Tyr	Gly	Pro	Ala	Glu	Val
65				70				75				80			
Lys	Val	Ser	Lys	Glu	Ile	Phe	Asn	Lys	Ala	Thr	Leu	Glu	Val	Ile	Leu

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<210> 4749
<211> 2196
<212> DNA
<213> Homo sapiens
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3923

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780
ggctctgctg acatccagga cttggagaaa tggctggcta aaattgcctg agaggcagct
840
ctaaagcaca agacctggat gtgtgacaca cagttttgga aaaaggctctg tggtagtctg
900
gagttgatga ggaaggggta caagatgtgg ttagaaacat ttctttgttc tggaaacaaa
960
gtactgttga aaccagcttg gaattttttt tttttttttt ttaagttcag ttctccctta
1020
tggctgcctt tcaaacaagt accttttatt tgatgcctgt atcttccctt tgtaaggtg
1080
taacttgatg tagggtaag gtttttgtga caacaggcag actccacaca gagaggatat
1140
gatgagaata tggccatcac ctgaaaagt ttcttatctt ctgtgctttt ggtccctgga
1200
aacaatccg cctatgtatg aagctagttg atttccagtt gcaactattc cagttgcctc
1260
tgaagttcac aggcaataca ttgtctagtc ctttgcgaat ttctctgatt tgtgggcaca
1320
gttatgaagt ttccccacat gtgaagacag gtacaaaata gcagagccaa gcagacagtg
1380
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1440
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1620
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1680
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1740
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1860
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2040
tgcattgaga gccatggtag gagaggccca cagttctctg gagcatgcag caggggcacc
2100
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2160
agggagtgtg atcttccatg tatggcctct gcctgc
2196

<210> 4750

<211> 276

<212> PRT

<213> Homo sapiens

<400> 4750

Xaa Arg Val Ser Ser Met Ala Ser Ala Asp Ser Arg Arg Leu Ala Asp
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 20 25 30
 Gln Glu Leu Gln Gln Thr Asp Pro Thr Leu Leu Ser Val Val Val Ala
 35 40 45
 Val Leu Ala Val Leu Leu Thr Leu Val Phe Trp Lys Leu Ile Arg Ser
 50 55 60
 Arg Arg Ser Ser Gln Arg Ala Val Leu Leu Val Gly Leu Cys Asp Ser
 65 70 75 80
 Gly Lys Thr Leu Leu Phe Val Arg Leu Leu Thr Gly Leu Tyr Arg Asp
 85 90 95
 Thr Gln Thr Ser Ile Thr Asp Ser Cys Ala Val Tyr Arg Val Asn Asn
 100 105 110
 Asn Arg Gly Asn Ser Leu Thr Leu Ile Asp Leu Pro Gly His Glu Ser
 115 120 125
 Leu Arg Leu Gln Phe Leu Glu Arg Phe Lys Ser Ser Ala Arg Ala Ile
 130 135 140
 Val Phe Val Val Asp Ser Ala Ala Phe Gln Arg Glu Val Lys Asp Val
 145 150 155 160
 Ala Glu Phe Leu Tyr Gln Val Leu Ile Asp Ser Met Gly Leu Lys Asn
 165 170 175
 Thr Pro Ser Phe Leu Ile Ala Cys Asn Lys Gln Asp Ile Ala Met Ala
 180 185 190
 Lys Ser Ala Lys Leu Ile Gln Gln Leu Glu Lys Glu Leu Asn Thr
 195 200 205
 Leu Arg Val Thr Arg Ser Ala Ala Pro Ser Thr Leu Asp Ser Ser Ser
 210 215 220
 Thr Ala Pro Ala Gln Leu Gly Lys Lys Gly Lys Glu Phe Glu Phe Ser
 225 230 235 240
 Gln Leu Pro Leu Lys Val Glu Phe Leu Glu Cys Ser Ala Lys Gly Gly
 245 250 255
 Arg Gly Asp Val Gly Ser Ala Asp Ile Gln Asp Leu Glu Lys Trp Leu
 260 265 270
 Ala Lys Ile Ala
 275

<210> 4751

<211> 2777

<212> DNA

<213> Homo sapiens

<400> 4751

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 ctccctcagcc catcaaagta ccacagttta tccccctcc tagactcact ccacgtccaa
 120
 acttttttcc acaggttcga cccaagcctg tggcccagaa taacattcct attgccccca
 180

gcaccacctc ccatgctcgc agctcctcag cttatccaga ggcccgatcat gctgaccaag
240
ttcacccccca caacccttcc cacatcccag aattccatcc accccgtccg tgtcgtcaat
300
gggcagactg caaccatagc caaaacgttc cccatggccc agctcaccag cattgtgata
360
gctactccag ggaccagact cgctggacct caaactgtac agcttagcaa gccaaagtctt
420
gaaaaacaga cagttaaatc tcacacagaa acagatgaga aacaaacaga gagccgcacc
480
atcaccccccac ctgctgcacc caaaccaaaa cgggaggaga accctcagaa acttgccttc
540
atggtgtctc tagggttggg aacacatgac catctagaag aaatccaaag caagaggcaa
600
gagcgaaaaa gaagaacaac agcaaatccg gtctacagtg gagcagtctt tgagccagag
660
cgtaagaaga gtgcagtgc atacctaaac agcacaatgc accctgggac ccggaagaga
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780
aaaagtggcc agttactgat gtgcgacaca tgttcccgtg tatatcattt ggactgctta
840
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960
tattgcctac aaagcagcaa aagaagaaga gaaacagaag ttacttaaat ggagttcaga
1020
tttaaaacaa gaacgagaac aactagagca aaaggtgaaa cagctcagca attccataag
1080
taaattgcatg gaaatgaaga acaccatcct ggcccgccag aaggagatgc acagctccct
1140
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1200
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1260
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		20					25					30			
Ser	Glu	Asp	Gly	Thr	Leu	Arg	Ser	Leu	Glu	Pro	Glu	Pro	Gln	Gln	Ser
	35					40					45				
Leu	Glu	Asp	Gly	Ser	Pro	Ala	Lys	Gly	Glu	Pro	Ser	Gln	Ala	Trp	Arg
	50					55				60					
Glu	Gln	Arg	Arg	Pro	Ser	Thr	Ser	Ser	Ala	Ser	Gly	Gln	Trp	Ser	Pro
65				70					75					80	
Thr	Pro	Glu	Trp	Val	Leu	Ser	Trp	Lys	Ser	Lys	Leu	Pro	Leu	Gln	Thr
		85						90					95		
Ile	Met	Arg	Leu	Leu	Gln	Val	Leu	Val	Pro	Gln	Val	Glu	Lys	Ile	Cys
		100						105					110		
Ile	Asp	Lys	Gly	Leu	Thr	Asp	Glu	Ser	Glu	Ile	Leu	Arg	Phe	Leu	Gln
	115					120						125			
His	Gly	Thr	Leu	Val	Gly	Leu	Leu	Pro	Val	Pro	His	Pro	Ile	Leu	Ile
	130					135					140				
Arg	Lys	Tyr	Gln	Ala	Asn	Ser	Gly	Thr	Ala	Met	Trp	Phe	Arg	Thr	Tyr
145				150					155					160	
Met	Trp	Gly	Val	Ile	Tyr	Leu	Arg	Asn	Val	Asp	Pro	Pro	Val	Trp	Tyr
		165						170					175		
Asp	Thr	Asp	Val	Lys	Leu	Phe	Glu	Ile	Gln	Arg	Val				
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<210> 4757

<211> 272

<212> DNA

<213> Homo sapiens

<400> 4757

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 120
 gacgtattcg tcttttecta ctcttgccaa gagggagaaa ccaaggagct ggtcatcagg
 180
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<210> 4758

<211> 90

<212> PRT

<213> Homo sapiens

<400> 4758

Xaa	Met	Glu	Ala	Pro	Thr	Arg	Ile	Arg	Asp	Thr	Pro	Glu	Asp	Ile	Val
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Leu	Glu	Ala	Pro	Ala	Ser	Gly	Leu	Ala	Phe	His	Pro	Ala	Arg	Asp	Leu
			20				25					30			
Leu	Ala	Ala	Gly	Asp	Val	Asp	Gly	Asp	Val	Phe	Val	Phe	Ser	Tyr	Ser
		35				40				45					
Cys	Gln	Glu	Gly	Glu	Thr	Lys	Glu	Leu	Val	Ile	Arg	Ser	His	Leu	Lys
	50					55				60					
Ala	Cys	Arg	Ala	Val	Ala	Phe	Ser	Glu	Asp	Gly	Gln	Lys	Leu	Ile	Thr
65				70				75					80		
Val	Ser	Lys	Asp	Lys	Ala	Ile	His	Val	Leu						
				85				90							

<210> 4759

<211> 1087

<212> DNA

<213> Homo sapiens

<400> 4759

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 180
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 240
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 300
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 360
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 420
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 480
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 540
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 600

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 960
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<210> 4760

<211> 78

<212> PRT

<213> Homo sapiens

<400> 4760

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Thr	Thr	Ala	Ala	Thr	Val	Ser	Val	Pro	Gln	Asp	Gly	Cys	Arg	Leu	Arg
			20					25					30		
Lys	Gly	Gln	Thr	Lys	Thr	Leu	Phe	Glu	Phe	Ser	Ser	Ser	Arg	Ala	Gly
		35					40					45			
Phe	Leu	Pro	Leu	Trp	Asp	Val	Ala	Ala	Thr	Asp	Phe	Gly	Gln	Thr	Asn
	50					55					60				
Gln	Lys	Phe	Gly	Phe	Glu	Leu	Gly	Pro	Val	Cys	Phe	Ser	Ser		
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<210> 4761

<211> 3973

<212> DNA

<213> Homo sapiens

<400> 4761

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<210> 4762

<211> 251

<212> PRT

<213> Homo sapiens

<400> 4762

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Arg	Lys	Lys	Arg	Val	Arg	Lys	Gly	Lys	Val	Glu	Tyr	Leu	Val	Lys	Trp
			20					25					30		
Lys	Gly	Trp	Pro	Pro	Lys	Tyr	Ser	Thr	Trp	Glu	Pro	Glu	Glu	His	Ile
		35					40					45			
Leu	Asp	Pro	Arg	Leu	Val	Met	Ala	Tyr	Glu	Glu	Lys	Glu	Glu	Arg	Asp
	50				55					60					
Arg	Ala	Ser	Gly	Tyr	Arg	Lys	Arg	Gly	Pro	Lys	Pro	Lys	Arg	Leu	Leu
65				70					75					80	
Leu	Gln	Arg	Leu	Tyr	Ser	Met	Asp	Leu	Arg	Ser	Ser	His	Lys	Ala	Lys
			85					90					95		
Gly	Lys	Glu	Lys	Leu	Cys	Phe	Ser	Leu	Thr	Cys	Pro	Leu	Gly	Ser	Gly
			100					105					110		
Ser	Pro	Glu	Gly	Val	Val	Lys	Ala	Gly	Ala	Pro	Glu	Leu	Val	Asp	Lys
		115					120					125			
Gly	Pro	Leu	Val	Pro	Thr	Leu	Pro	Phe	Pro	Leu	Arg	Lys	Pro	Arg	Lys
	130					135					140				
Ala	His	Lys	Tyr	Leu	Arg	Leu	Ser	Arg	Lys	Lys	Phe	Pro	Pro	Arg	Gly
145				150						155				160	
Pro	Asn	Leu	Glu	Ser	His	Ser	His	Arg	Arg	Glu	Leu	Phe	Leu	Gln	Glu
			165					170						175	
Pro	Pro	Ala	Pro	Asp	Val	Leu	Gln	Ala	Ala	Gly	Glu	Trp	Glu	Pro	Ala
		180						185					190		
Ala	Gln	Pro	Pro	Glu	Glu	Glu	Ala	Asp	Ala	Asp	Leu	Ala	Glu	Gly	Pro
	195						200					205			
Pro	Pro	Trp	Thr	Pro	Ala	Leu	Pro	Ser	Ser	Glu	Val	Thr	Val	Thr	Asp
	210					215					220				
Ile	Thr	Ala	Asn	Ser	Ile	Thr	Val	Thr	Phe	Arg	Glu	Ala	Gln	Ala	Ala
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Glu	Gly	Phe	Phe	Arg	Asp	Arg	Ser	Gly	Lys	Phe					
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<210> 4763

<211> 2158

<212> DNA

<213> Homo sapiens

<400> 4763

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120
agtgatgatt ttgacagtcc agtcaaggga cctttgtgta aatcagttac tccaacaaaa
180
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<210> 4764

<211> 719

<212> PRT

<213> Homo sapiens

<400> 4764

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			20					25					30		
Leu	Lys	Lys	Arg	Glu	Ile	Lys	Leu	Ser	Asp	Asp	Phe	Asp	Ser	Pro	Val
		35				40					45				
Lys	Gly	Pro	Leu	Cys	Lys	Ser	Val	Thr	Pro	Thr	Lys	Glu	Phe	Leu	Lys
	50				55					60					
Asp	Glu	Ile	Lys	Gln	Glu	Glu	Thr	Cys	Lys	Arg	Ile	Ser	Thr	Ile	
65				70				75						80	
Thr	Ala	Leu	Gly	His	Glu	Gly	Lys	Gln	Leu	Val	Asn	Gly	Glu	Val	Ser
			85					90						95	
Asp	Glu	Arg	Val	Ala	Pro	Asn	Phe	Lys	Thr	Glu	Pro	Ile	Glu	Thr	Lys
		100						105					110		
Phe	Tyr	Glu	Thr	Lys	Glu	Glu	Ser	Tyr	Ser	Pro	Ser	Lys	Asp	Arg	Asn
		115					120					125			
Ile	Ile	Thr	Glu	Gly	Asn	Gly	Thr	Glu	Ser	Leu	Asn	Ser	Val	Ile	Thr
	130				135					140					
Ser	Met	Lys	Thr	Gly	Glu	Leu	Glu	Lys	Glu	Thr	Ala	Pro	Leu	Arg	Lys
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Asp	Ala	Asp	Ser	Ser	Ile	Ser	Val	Leu	Glu	Ile	His	Ser	Gln	Lys	Ala
			165					170						175	
Gln	Ile	Glu	Glu	Pro	Asp	Pro	Pro	Glu	Met	Glu	Thr	Ser	Leu	Asp	Ser

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210										215										220															
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225										230										235															
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245										250										255															
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275										280										285															
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Phe Asp Glu Phe Asp Glu Ala Ile Asp Glu Ala Ile Glu Asp Asp Ile		670
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Lys Glu Ala Asp Gly Gly Gly Val Gly Arg Gly Lys Asp Ile Ser Thr		685
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<210> 4765

<211> 1707

<212> DNA

<213> Homo sapiens

<400> 4765

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<210> 4766

<211> 280

<212> PRT

<213> Homo sapiens

<400> 4766

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 Ser Leu Gln His Val Ala Glu Lys Leu Cys Arg Glu Leu Tyr Asn Lys
 115 120 125
 Ala Gly Ala His Arg Cys Ser Pro Cys Thr Glu Gln Trp Lys Trp His
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<210> 4768

<211> 460

<212> PRT

<213> Homo sapiens

<400> 4768

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	50					55					60				
Glu	Gly	Asp	Gly	Glu	Pro	Tyr	Glu	Pro	Glu	Ser	Gly	Cys	Val	Glu	
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Ile	Pro	Gly	Leu	Ser	Glu	Glu	Glu	Asp	Pro	Ala	Pro	Ser	Arg	Lys	Ile
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<210> 4769

<211> 1533

<212> DNA

<213> Homo sapiens

<400> 4769

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<210> 4770

<211> 237

<212> PRT

<213> Homo sapiens

<400> 4770

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<211> 2653

<212> DNA

<213> Homo sapiens

<400> 4771

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 Gln Lys Asn Val Asp Glu Lys Val Lys Glu Ala Gly Ser Ser Met Arg
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 Lys Arg Ala Lys Leu Ile Ser Thr Val Ser Lys Lys Asp Phe Ile Ser
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 Val Leu Arg Gly Met Asp Gly Ser Thr Asn Glu Thr Ala Ser Ser Arg
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 Lys Lys Pro Lys Ala Lys Gln Thr Glu Val Lys Ser Glu Glu Gly Pro
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Pro Asn Pro Ser Ser Leu Phe Pro Pro Ser Pro Gln Ala Arg Ala Ala
      35             40             45
Met Gly Trp Arg Val Leu Ala Trp Thr Gln His Pro Ile Ser Ser Ala
      50             55             60
Leu Ser Leu Asp Pro Ala Ser His Leu Leu Ser Ser Gln Gly Gly Gly
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<210> 4775

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<212> DNA

<213> Homo sapiens

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180
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<213> Homo sapiens

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Leu Trp Leu His Cys Pro Pro Cys Tyr Phe Phe Glu Arg Ala Asn His
      35             40             45
Thr Ala Thr Ser Leu Pro Leu His Leu Leu Ser Leu Leu Leu Leu Thr
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Ile His Ala Ala His Pro Val Thr Ser Phe Gln Phe Leu Leu Thr Phe

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Asn

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<212> PRT

<213> Homo sapiens

<400> 4778

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			20					25					30		
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<210> 4779

<211> 4467

<212> DNA

<213> Homo sapiens

<400> 4779

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<211> 1241

<212> PRT

<213> Homo sapiens

<400> 4780

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 35          40          45
Gln Gln Gln Gln Gln Gln Gln Gln Pro Gln Gln Gln Pro Gln Val Leu
 50          55          60
Ser Ser Glu Gly Gly Gln Leu Arg His Asn Pro Leu Asp Ile Gln Met
65          70          75          80
Leu Ser Arg Gly Leu His Glu Gln Ile Phe Gly Gln Gly Gly Glu Met
          85          90          95
Pro Gly Glu Ala Ala Val Arg Arg Ser Val Glu His Leu Gln Lys His
          100          105          110
Gly Leu Trp Gly Gln Pro Ala Val Pro Leu Pro Asp Val Glu Leu Arg
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Leu Pro Pro Leu Tyr Gly Asp Asn Leu Asp Gln His Phe Arg Leu Leu
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Gln Ala Gln Leu Pro Pro Lys Pro Pro Ala Trp Ala Trp Ala Glu Gly
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Trp Thr Arg Tyr Gly Pro Glu Gly Glu Ala Val Pro Val Ala Ile Pro
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Glu Glu Arg Ala Leu Val Phe Asp Val Glu Val Cys Leu Ala Glu Gly
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Trp Cys Ser Gln Arg Leu Val Glu Glu Arg Tyr Ser Trp Thr Ser Gln
225          230          235          240
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Val Met Ala Arg Ala Cys Leu Gln Lys Leu Lys Gly Thr Thr Glu Leu			
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Leu Pro Lys Arg Pro Gln His Leu Pro Gly His Pro Gly Trp Tyr Arg			
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Lys Leu Cys Pro Arg Leu Asp Asp Pro Ala Trp Thr Pro Gly Pro Ser			
580	585	590	
Leu Leu Ser Leu Gln Met Arg Val Thr Pro Lys Leu Met Ala Leu Thr			
595	600	605	
Trp Asp Gly Phe Pro Leu His Tyr Ser Glu Arg His Gly Trp Gly Tyr			
610	615	620	
Leu Val Pro Gly Arg Arg Asp Asn Leu Ala Lys Leu Pro Thr Gly Thr			
625	630	635	640
Thr Leu Glu Ser Ala Gly Val Val Cys Pro Tyr Arg Ala Ile Glu Ser			
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Leu Tyr Arg Lys His Cys Leu Glu Gln Gly Lys Gln Gln Leu Met Pro			
660	665	670	
Gln Glu Ala Gly Leu Ala Glu Glu Phe Leu Leu Thr Asp Asn Ser Ala			
675	680	685	
Ile Trp Gln Thr Val Glu Glu Leu Asp Tyr Leu Glu Val Glu Ala Glu			
690	695	700	
Ala Lys Met Glu Asn Leu Arg Ala Ala Val Pro Gly Gln Pro Leu Ala			
705	710	715	720
Leu Thr Ala Arg Gly Gly Pro Lys Asp Thr Gln Pro Ser Tyr His His			
725	730	735	
Gly Asn Gly Pro Tyr Asn Asp Val Asp Ile Pro Gly Cys Trp Phe Phe			
740	745	750	
Lys Leu Pro His Lys Asp Gly Asn Ser Cys Asn Val Gly Ser Pro Phe			
755	760	765	
Ala Lys Asp Phe Leu Pro Lys Met Glu Asp Gly Thr Leu Gln Ala Gly			
770	775	780	
Pro Gly Gly Ala Ser Gly Pro Arg Ala Leu Glu Ile Asn Lys Met Ile			
785	790	795	800
Ser Phe Trp Arg Asn Ala His Lys Arg Ile Ser Ser Gln Met Val Val			
805	810	815	
Trp Leu Pro Arg Ser Ala Leu Pro Arg Ala Val Ile Arg His Pro Asp			

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Ala	Gly	Thr	Ile	Thr	Arg	Arg	Ala	Val	Glu	Pro	Thr	Trp	Leu	Thr	Ala														
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Gln	Ala	Pro	Pro	Gly	Tyr	Thr	Leu	Val	Gly	Ala	Asp	Val	Asp	Ser	Gln														
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Glu	Leu	Trp	Ile	Ala	Ala	Val	Leu	Gly	Asp	Ala	His	Phe	Ala	Gly	Met														
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His	Gly	Cys	Thr	Ala	Phe	Gly	Trp	Met	Thr	Leu	Gln	Gly	Arg	Lys	Ser														
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Arg	Gly	Thr	Asp	Leu	His	Ser	Lys	Thr	Ala	Thr	Thr	Val	Gly	Ile	Ser														
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Arg	Glu	His	Ala	Lys	Ile	Phe	Asn	Tyr	Gly	Arg	Ile	Tyr	Gly	Ala	Gly														
945										950										955									
Gln	Pro	Phe	Ala	Glu	Arg	Leu	Leu	Met	Gln	Phe	Asn	His	Arg	Leu	Thr														
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Gln	Gln	Glu	Ala	Ala	Glu	Lys	Ala	Gln	Gln	Met	Tyr	Ala	Ala	Thr	Lys														
980										985										990									
Gly	Leu	Arg	Trp	Tyr	Arg	Leu	Ser	Asp	Glu	Gly	Glu	Trp	Leu	Val	Arg														
995										1000										1005									
Glu	Leu	Asn	Leu	Pro	Val	Asp	Arg	Thr	Glu	Gly	Gly	Trp	Ile	Ser	Leu														
1010										1015										1020									
Gln	Asp	Leu	Arg	Lys	Val	Gln	Arg	Glu	Thr	Ala	Arg	Lys	Ser	Gln	Trp														
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Lys	Lys	Trp	Glu	Val	Val	Ala	Glu	Arg	Ala	Trp	Lys	Gly	Gly	Thr	Glu														
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Ser	Glu	Met	Phe	Asn	Lys	Leu	Glu	Ser	Ile	Ala	Thr	Ser	Asp	Ile	Pro														
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Arg	Thr	Pro	Val	Leu	Gly	Cys	Cys	Ile	Ser	Arg	Ala	Leu	Glu	Pro	Ser														
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Ala	Val	Gln	Glu	Glu	Phe	Met	Thr	Ser	Arg	Val	Asn	Trp	Val	Val	Gln														
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Ser	Ser	Ala	Val	Asp	Tyr	Leu	His	Leu	Met	Leu	Val	Ala	Met	Lys	Trp														
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Leu	Phe	Glu	Glu	Phe	Ala	Ile	Asp	Gly	Arg	Phe	Cys	Ile	Ser	Ile	His														
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Leu	Ala	Leu	Gln	Ile	Thr	Asn	Leu	Leu	Thr	Arg	Cys	Met	Phe	Ala	Tyr														
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Lys	Leu	Gly	Leu	Asn	Asp	Leu	Pro	Gln	Ser	Val	Ala	Phe	Phe	Ser	Ala														
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Val	Asp	Ile	Tyr	Arg	Cys	Leu	Arg	Lys	Glu	Val	Thr	Met	Asp	Cys	Lys														
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Gly	Glu	Ala	Leu	Asp	Ile	Tyr	Gln	Ile	Ile	Glu	Leu	Thr	Lys	Gly	Ser														
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<210> 4781
 <211> 344
 <212> DNA
 <213> Homo sapiens

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 180
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 240
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<210> 4782
 <211> 109
 <212> PRT
 <213> Homo sapiens

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 Gln Gly Asn Gly Gly Gln Thr Arg Lys Leu Thr Ala Ser Arg Thr Val
 35 40 45
 Ser Glu Lys His Gln Gly Lys Ala Ala Thr Thr Ala Lys Thr Leu Ile
 50 55 60
 Pro Lys Ser Gln His Arg Met Leu Ala Pro Thr Gly Ala Val Ser Thr
 65 70 75 80
 Arg Thr Arg Gln Lys Gly Val Thr Thr Ala Val Ile Pro Pro Lys Glu
 85 90 95
 Lys Lys Pro Gln Ala Thr Pro Pro Pro Ala Pro Phe Gln
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<210> 4783
 <211> 1143
 <212> DNA
 <213> Homo sapiens

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 180
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 240

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 360
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 420
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<210> 4784

<211> 212

<212> PRT

<213> Homo sapiens

<400> 4784

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		20					25					30			
Ala	Leu	Asn	Leu	Ser	Leu	Cys	Lys	Gln	Ile	Thr	Asp	Ser	Ser	Leu	Gly
		35				40					45				
Arg	Ile	Ala	Gln	Tyr	Leu	Lys	Gly	Leu	Glu	Val	Leu	Glu	Leu	Gly	Gly
	50				55				60						
Cys	Ser	Asn	Ile	Thr	Asn	Thr	Gly	Leu	Leu	Leu	Ile	Ala	Trp	Gly	Leu
65				70					75					80	
Gln	Arg	Leu	Lys	Ser	Leu	Asn	Leu	Arg	Ser	Cys	Arg	His	Leu	Ser	Asp
		85					90					95			
Val	Gly	Ile	Gly	His	Leu	Ala	Gly	Met	Thr	Arg	Ser	Ala	Ala	Glu	Gly
		100					105					110			
Cys	Leu	Gly	Leu	Glu	Gln	Leu	Thr	Leu	Gln	Asp	Cys	Gln	Lys	Leu	Thr

115 120 125
 Asp Leu Ser Leu Lys His Ile Ser Arg Gly Leu Thr Gly Leu Arg Leu
 130 135 140
 Leu Asn Leu Ser Phe Cys Gly Gly Ile Ser Asp Ala Gly Leu Leu His
 145 150 155 160
 Leu Ser His Met Gly Ser Leu Arg Ser Leu Asn Leu Arg Ser Cys Asp
 165 170 175
 Asn Ile Ser Asp Thr Gly Ile Met His Leu Ala Met Gly Ser Leu Arg
 180 185 190
 Leu Ser Gly Leu Asp Val Ser Phe Cys Asp Lys Val Gly Asp Gln Ser
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<210> 4785

<211> 3289

<212> DNA

<213> Homo sapiens

<400> 4785

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 180
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<210> 4786

<211> 322

<212> PRT

<213> Homo sapiens

<400> 4786

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			20					25					30		
Val	Gly	Ala	Asp	Asn	Val	Gly	Ser	Lys	Gln	Met	Gln	Gln	Ile	Arg	Met
		35					40					45			
Ser	Leu	Arg	Gly	Lys	Ala	Val	Val	Leu	Met	Gly	Lys	Asn	Thr	Met	Met
50						55					60				
Arg	Lys	Ala	Ile	Arg	Gly	His	Leu	Glu	Asn	Asn	Pro	Ala	Leu	Glu	Lys
65				70					75					80	
Leu	Leu	Pro	His	Ile	Arg	Gly	Asn	Val	Gly	Phe	Val	Phe	Thr	Lys	Glu
			85					90						95	
Asp	Leu	Thr	Glu	Ile	Arg	Asp	Met	Leu	Leu	Ala	Asn	Lys	Val	Pro	Ala
		100						105					110		
Ala	Ala	Arg	Ala	Gly	Ala	Ile	Ala	Pro	Cys	Glu	Val	Thr	Val	Pro	Ala
		115					120					125			
Gln	Asn	Thr	Gly	Leu	Gly	Pro	Glu	Lys	Thr	Ser	Phe	Phe	Gln	Ala	Leu
	130					135						140			
Gly	Ile	Thr	Thr	Lys	Ile	Ser	Arg	Gly	Thr	Ile	Glu	Ile	Leu	Ser	Asp
145				150					155					160	
Val	Gln	Leu	Ile	Lys	Thr	Gly	Asp	Lys	Val	Gly	Ala	Ser	Glu	Ala	Thr
			165					170					175		
Leu	Leu	Asn	Met	Leu	Asn	Ile	Ser	Pro	Phe	Ser	Phe	Gly	Leu	Val	Ile
		180						185					190		
Gln	Gln	Val	Phe	Asp	Asn	Gly	Ser	Ile	Tyr	Asn	Pro	Glu	Val	Leu	Asp

195	200	205
Ile Thr Glu Glu Thr Leu His Ser Arg Phe Leu Glu Gly Val Arg Asn		
210	215	220
Val Ala Ser Val Cys Leu Gln Ile Gly Tyr Pro Thr Val Ala Ser Val		
225	230	235
Pro His Ser Ile Ile Asn Gly Tyr Lys Arg Val Leu Ala Leu Ser Val		
245	250	255
Glu Thr Asp Tyr Thr Phe Pro Leu Ala Glu Lys Val Lys Ala Phe Leu		
260	265	270
Ala Asp Pro Ser Ala Phe Val Ala Ala Ala Pro Val Ala Ala Ala Thr		
275	280	285
Thr Ala Ala Pro Ala Ala Ala Ala Ala Ala Pro Ala Lys Val Glu		
290	295	300
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Phe Asp		320

<210> 4787

<211> 1258

<212> DNA

<213> Homo sapiens

<400> 4787

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<210> 4788

<211> 197

<212> PRT

<213> Homo sapiens

<400> 4788

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Val	Glu	Thr	Met	Glu	Gly	Pro	Pro	Arg	Arg	Thr	Cys	Arg	Ser	Pro	Glu
			20					25					30		
Pro	Gly	Pro	Ser	Ser	Ser	Ile	Gly	Ser	Pro	Gln	Ala	Ser	Ser	Pro	Pro
			35				40					45			
Arg	Pro	Asn	His	Tyr	Leu	Leu	Ile	Asp	Thr	Gln	Gly	Val	Pro	Tyr	Thr
			50			55					60				
Val	Leu	Val	Asp	Glu	Glu	Ser	Gln	Arg	Glu	Pro	Gly	Ala	Ser	Gly	Ala
65					70				75					80	
Pro	Gly	Gln	Lys	Lys	Cys	Tyr	Ser	Cys	Pro	Val	Cys	Ser	Arg	Val	Phe
			85						90					95	
Glu	Tyr	Met	Ser	Tyr	Leu	Gln	Arg	His	Ser	Ile	Thr	His	Ser	Glu	Val
			100					105					110		
Lys	Pro	Phe	Glu	Cys	Asp	Ile	Cys	Gly	Lys	Ala	Phe	Lys	Arg	Ala	Ser
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<211> 1515

<212> DNA

<213> Homo sapiens

<400> 4789

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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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<210> 4796

<211> 541

<212> PRT

<213> Homo sapiens

<400> 4796

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	435		440		445
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Ser Arg Ala Asp Pro Thr Thr Val Thr Asp Ser Asp Ala Asp Ile Thr					
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Leu Gln Ala Tyr Pro Ser Gly Val Lys Ser Trp Gly Cys Pro Gln Glu					
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<210> 4797

<211> 2848

<212> DNA

<213> Homo sapiens

<400> 4797

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<210> 4798

<211> 401

<212> PRT

<213> Homo sapiens

<400> 4798

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Phe	Glu	Ser	Phe	Leu	Asp	Asp	Glu	Glu	Asp	Leu	Asp	Val	Lys	Ala	Gly
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Gln	Lys	Asn	Ile	Asp	Gln	Gln	Ile	Lys	Thr	Arg	Pro	Arg	Lys	Ile	Lys
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Ser	Phe	Asp	Arg	Glu	Leu	Glu	Arg	Glu	Lys	Glu	Arg	Gln	Arg	Leu	Glu
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Arg	Glu	Ala	Lys	Glu	Arg	Glu	Lys	Glu	Arg	Arg	Ser	Arg	Ser	Ile	
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	210				215						220				
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Arg	Glu	Arg	Ser	Lys	Glu	Gln	Arg	Ser	Arg	Gly	Glu	Val	Glu	Glu	Lys
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 325 330 335
 Val Glu Lys Ser Lys Lys Arg Glu His Ser Pro Ser Lys Glu Lys Ser
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<210> 4799

<211> 358

<212> DNA

<213> Homo sapiens

<400> 4799

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<210> 4800

<211> 119

<212> PRT

<213> Homo sapiens

<400> 4800

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 20 25 30
 Pro Pro Cys Gly His Arg Gly Ala Leu Asp Gln Pro His His Arg Val
 35 40 45
 Ala Gln Pro His Leu Gln Val Val Arg Gln Arg Ser Pro Pro Ala Ser
 50 55 60
 Trp Ser Pro Pro Pro Arg Ala Leu Ser His Val Phe Leu Phe Gly Asp
 65 70 75 80
 Arg Pro Phe Trp Trp Val His Glu Ser Gly Tyr Tyr Ser Gln Ala Pro

	85		90		95										
Ala	Gln	Val	His	Gln	Phe	Pro	Ser	Ser	Cys	Glu	Thr	Gly	Pro	Gly	Ser
	100						105						110		
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<210> 4801

<211> 1447

<212> DNA

<213> Homo sapiens

<400> 4801

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120

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<210> 4802

<211> 377

<212> PRT

<213> Homo sapiens

<400> 4802

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Arg	Arg	Val	Gly	Ile	Ala	Val	Leu	Trp	Ile	Ser	Leu	Ile	Thr	Glu	Trp
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Leu	Asn	Leu	Ile	Phe	Lys	Trp	Phe	Leu	Phe	Gly	Asp	Arg	Pro	Phe	Trp
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Trp	Val	His	Glu	Ser	Gly	Tyr	Tyr	Ser	Gln	Ala	Pro	Ala	Gln	Val	His
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Gln	Phe	Pro	Ser	Ser	Cys	Glu	Thr	Gly	Pro	Gly	Ser	Pro	Ser	Gly	His
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Cys	Met	Ile	Thr	Gly	Ala	Ala	Leu	Trp	Pro	Ile	Met	Thr	Ala	Leu	Ser
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Ser	Gln	Val	Ala	Thr	Arg	Ala	Arg	Ser	Arg	Trp	Val	Arg	Val	Met	Pro
				165					170					175	
Ser	Leu	Ala	Tyr	Cys	Thr	Phe	Leu	Leu	Ala	Val	Gly	Leu	Ser	Arg	Ile
		180						185					190		
Phe	Ile	Leu	Ala	His	Phe	Pro	His	Gln	Val	Leu	Ala	Gly	Leu	Ile	Thr
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		210					215					220			
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225					230					235				240	
Thr	Ser	Leu	Ile	Tyr	Trp	Thr	Leu	Phe	Thr	Leu	Gly	Leu	Asp	Leu	Ser
				245					250					255	
Trp	Ser	Ile	Ser	Leu	Ala	Phe	Lys	Trp	Cys	Glu	Arg	Pro	Glu	Trp	Ile
		260						265					270		
His	Val	Asp	Ser	Arg	Pro	Phe	Ala	Ser	Leu	Ser	Arg	Asp	Ser	Gly	Ala
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Ala	Leu	Gly	Leu	Gly	Ile	Ala	Leu	His	Ser	Pro	Cys	Tyr	Ala	Gln	Val
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Arg	Arg	Ala	Gln	Leu	Gly	Asn	Gly	Gln	Lys	Ile	Ala	Cys	Leu	Val	Leu

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Ala Met Gly Leu Leu Gly Pro Leu Asp Trp Leu Gly His Pro Pro Gln						
	325		330		335	
Ile Ser Leu Phe Tyr Ile Phe Asn Phe Leu Lys Tyr Thr Leu Trp Pro						
	340		345		350	
Cys Leu Val Leu Ala Leu Val Pro Trp Ala Val His Met Phe Ser Ala						
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<211> 564

<212> DNA

<213> Homo sapiens

<400> 4803

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<210> 4804

<211> 53

<212> PRT

<213> Homo sapiens

<400> 4804

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Ser Lys Ile Thr Leu Gln Asp Lys Gln Asn Met Val Lys Arg Val Ser									
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<210> 4805

<211> 1619

<212> DNA

<213> Homo sapiens

<400> 4805

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420
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<210> 4806

<211> 438

<212> PRT

<213> Homo sapiens

<400> 4806

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			20					25					30		
Arg	Ser	Asn	Trp	Lys	Ile	Gln	Ser	Leu	Lys	Asp	Glu	Ile	Thr	Ser	Glu
		35					40					45			
Lys	Leu	Asn	Gly	Val	Lys	Leu	Trp	Ile	Thr	Ala	Gly	Pro	Arg	Glu	Lys
	50					55					60				
Phe	Thr	Ala	Ala	Glu	Phe	Glu	Ile	Leu	Lys	Lys	Tyr	Leu	Asp	Thr	Gly
65					70					75					80
Gly	Asp	Val	Leu	Val	Met	Leu	Gly	Glu	Gly	Gly	Glu	Ser	Arg	Phe	Asp
			85						90					95	
Thr	Asn	Ile	Asn	Phe	Leu	Leu	Glu	Glu	Tyr	Gly	Ile	Met	Val	Asn	Asn
			100					105					110		
Asp	Ala	Val	Val	Arg	Asn	Val	Tyr	His	Lys	Tyr	Phe	His	Pro	Lys	Glu
		115					120					125			
Ala	Leu	Val	Ser	Ser	Gly	Val	Leu	Asn	Arg	Glu	Ile	Ser	Arg	Ala	Ala
						135					140				
Gly	Lys	Ala	Val	Leu	Ala	Ile	Ile	Asp	Glu	Glu	Ser	Ser	Gly	Asn	Asn
145					150					155					160
Ala	Gln	Ala	Leu	Thr	Phe	Val	Tyr	Pro	Phe	Gly	Ala	Thr	Leu	Ser	Val
			165						170					175	
Met	Lys	Pro	Ala	Val	Ala	Val	Leu	Ser	Thr	Gly	Ser	Val	Cys	Phe	Pro
			180					185					190		
Leu	Asn	Arg	Pro	Ile	Leu	Ala	Phe	Tyr	His	Ser	Lys	Asn	Gln	Gly	Gly
		195					200					205			
Lys	Leu	Ala	Val	Leu	Gly	Ser	Cys	His	Met	Phe	Ser	Asp	Gln	Tyr	Leu
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Asp	Lys	Glu	Glu	Asn	Ser	Lys	Ile	Met	Asp	Val	Val	Val	Phe	Gln	Trp
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Leu	Thr	Thr	Gly	Asp	Ile	His	Leu	Asn	Gln	Ile	Asp	Ala	Glu	Asp	Pro
			245						250					255	
Glu	Ile	Ser	Asp	Tyr	Met	Met	Leu	Pro	Tyr	Thr	Ala	Thr	Leu	Ser	Lys
			260					265					270		
Arg	Asn	Arg	Glu	Cys	Leu	Gln	Glu	Ser	Asp	Glu	Ile	Pro	Arg	Asp	Phe
		275					280					285			
Thr	Thr	Leu	Phe	Asp	Leu	Ser	Ile	Phe	Gln	Leu	Asp	Thr	Thr	Ser	Phe
	290					295					300				
His	Ser	Val	Ile	Glu	Ala	His	Glu	Gln	Leu	Asn	Val	Lys	His	Glu	Pro
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Leu	Gln	Leu	Ile	Gln	Pro	Gln	Phe	Glu	Thr	Pro	Leu	Pro	Thr	Leu	Gln
			325						330					335	
Pro	Ala	Val	Phe	Pro	Pro	Ser	Phe	Arg	Glu	Leu	Pro	Pro	Pro	Pro	Leu

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	355					360					365				
Ala	Gln	Ile	Thr	Asn	Lys	Cys	Thr	Glu	Glu	Asp	Leu	Glu	Phe	Tyr	Val
	370					375					380				
Arg	Lys	Cys	Gly	Asp	Ile	Leu	Gly	Val	Thr	Ser	Lys	Leu	Pro	Lys	Asp
	385				390					395				400	
Gln	Gln	Asp	Ala	Lys	His	Ile	Leu	Glu	His	Val	Phe	Phe	Gln	Val	Val
			405						410					415	
Glu	Phe	Lys	Lys	Leu	Asn	Gln	Glu	His	Asp	Ile	Asp	Thr	Ser	Glu	Thr
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<210> 4807

<211> 1177

<212> DNA

<213> Homo sapiens

<400> 4807

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180
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240
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420
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480
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540
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600
gtaccagctg gccaggggct catcgtgggc atctctccc caggaagcct gcagtatatg
660
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780
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1020

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<210> 4808

<211> 313

<212> PRT

<213> Homo sapiens

<400> 4808

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			20					25					30		
Thr	Val	Tyr	Ile	Thr	Gly	Arg	His	Leu	Asp	Thr	Leu	Arg	Val	Val	Ala
		35					40					45			
Gln	Glu	Ala	Gln	Ser	Leu	Gly	Gly	Gln	Cys	Val	Pro	Val	Val	Cys	Asp
	50					55					60				
Ser	Ser	Gln	Glu	Ser	Glu	Val	Arg	Ser	Leu	Phe	Glu	Gln	Val	Asp	Arg
65					70					75				80	
Glu	Gln	Gln	Gly	Arg	Leu	Asp	Val	Leu	Val	Asn	Asn	Ala	Tyr	Ala	Gly
				85					90					95	
Val	Gln	Thr	Ile	Leu	Asn	Thr	Arg	Asn	Lys	Ala	Phe	Trp	Glu	Thr	Pro
			100					105						110	
Ala	Ser	Met	Trp	Asp	Asp	Ile	Asn	Asn	Val	Gly	Leu	Arg	Gly	His	Tyr
		115					120					125			
Phe	Cys	Ser	Val	Tyr	Gly	Ala	Arg	Leu	Met	Val	Pro	Ala	Gly	Gln	Gly
	130					135					140				
Leu	Ile	Val	Val	Ile	Ser	Ser	Pro	Gly	Ser	Leu	Gln	Tyr	Met	Phe	Asn
145					150					155				160	
Val	Pro	Tyr	Gly	Val	Gly	Lys	Ala	Ala	Cys	Asp	Lys	Leu	Ala	Ala	Asp
				165					170					175	
Cys	Ala	His	Glu	Leu	Arg	Arg	His	Gly	Val	Ser	Cys	Val	Ser	Leu	Trp
			180					185					190		
Pro	Gly	Ile	Val	Gln	Thr	Glu	Leu	Leu	Lys	Glu	His	Met	Ala	Lys	Glu
		195					200					205			
Glu	Val	Leu	Gln	Asp	Pro	Val	Leu	Lys	Gln	Phe	Lys	Ser	Ala	Phe	Ser
	210					215					220				
Ser	Ala	Glu	Thr	Thr	Glu	Leu	Ser	Gly	Lys	Cys	Val	Val	Ala	Leu	Ala
225					230					235				240	
Thr	Asp	Pro	Asn	Ile	Leu	Ser	Leu	Ser	Gly	Lys	Val	Leu	Pro	Ser	Cys
			245						250					255	
Asp	Leu	Ala	Arg	Arg	Tyr	Gly	Leu	Arg	Asp	Val	Asp	Gly	Arg	Pro	Val
		260					265						270		
Gln	Asp	Tyr	Leu	Ser	Leu	Ser	Ser	Val	Leu	Ser	His	Val	Ser	Gly	Leu
	275						280					285			
Gly	Trp	Leu	Ala	Ser	Tyr	Leu	Pro	Ser	Phe	Leu	Arg	Val	Pro	Lys	Trp
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Ile	Ile	Ala	Leu	Tyr	Thr	Ser	Lys	Phe							
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<210> 4809
 <211> 999
 <212> DNA
 <213> Homo sapiens

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 120
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 180
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 240
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 360
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 420
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 480
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 540
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 660
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 720
 gggcctatgt ggccaggccc tggatacttc cctgacctca cctcccctac agcacagccc
 780
 cttcagctcc tgggggcttt gcacggctgc tcttctctc cccctctgcc ctcaggccag
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 900
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 999

<210> 4810
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 4810
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 Ser Gln Pro Gly Cys His Ser Gly Leu Leu Thr Asn Thr Pro Ala Ala
 35 40 45
 Leu Val Pro Ala His Ala Arg Gln Arg Ser Gln Pro Ser Leu Leu Leu

50					55					60					
Ser	Ser	Ser	Pro	Arg	Lys	Ser	Arg	Ser	Trp	Gln	Gly	Ser	Gly	Pro	Met
65					70					75				80	
Trp	Pro	Gly	Pro	Gly	Tyr	Phe	Pro	Asp	Leu	Thr	Ser	Pro	Thr	Ala	Gln
				85					90					95	
Pro	Leu	Gln	Leu	Leu	Gly	Ala	Leu	His	Gly	Cys	Ser	Phe	Pro	Pro	Pro
			100					105					110		
Leu	Pro	Ser	Gly	Gln	Pro	Cys	Pro								
		115					120								

<210> 4811

<211> 3207

<212> DNA

<213> Homo sapiens

<400> 4811

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120
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480
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720
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780
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1020
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1080
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1140

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gcacccccct cctctgtcac ctccacaccc ggaccccccc ggatggactt ctcccgtgtc
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1260
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1320
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1440
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1620
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1920
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1980
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2040
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2100
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2160
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2220
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2280
ccaccataac cagcccactg tcaccctaa ttacagaca ccaaacagt cctggaagtg
2340
ctaattacag gaccccccaa gtcttctac cctctgcacc ctcaagaaac cccagtgcc
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2580
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2700
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 3207

<210> 4812

<211> 306

<212> PRT

<213> Homo sapiens

<400> 4812

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Leu	Arg	Thr	Leu	Glu	Glu	Ala	Val	Pro	Leu	Ser	Cys	Ala	Leu	Pro	
	20						25					30			
Lys	Val	Thr	Leu	Pro	Asn	Tyr	Asp	Asn	Val	Pro	Gly	Asn	Leu	Met	Leu
	35					40					45				
Ser	Ala	Leu	Gly	Leu	Arg	Leu	Gly	Asp	Arg	Val	Leu	Leu	Asp	Gly	Gln
	50					55				60					
Lys	Thr	Gly	Thr	Leu	Arg	Phe	Cys	Gly	Thr	Thr	Glu	Phe	Ala	Ser	Gly
65				70				75						80	
Ser	Trp	Val	Gly	Val	Glu	Leu	Asp	Glu	Pro	Glu	Gly	Lys	Asn	Asp	Gly
		85						90						95	
Ser	Val	Gly	Gly	Val	Arg	Tyr	Phe	Ile	Cys	Pro	Pro	Lys	Gln	Gly	Leu
	100							105					110		
Phe	Ala	Ser	Val	Ser	Lys	Ile	Ser	Lys	Ala	Val	Asp	Ala	Pro	Pro	Ser
	115						120					125			
Ser	Val	Thr	Ser	Thr	Pro	Gly	Pro	Pro	Arg	Met	Asp	Phe	Ser	Arg	Val
	130					135					140				
Thr	Gly	Lys	Gly	Arg	Arg	Glu	His	Lys	Gly	Lys	Lys	Lys	Thr	Pro	Ser
145				150						155				160	
Ser	Pro	Ser	Leu	Gly	Ser	Leu	Gln	Gln	Arg	Asp	Gly	Ala	Lys	Ala	Glu
			165					170						175	
Val	Gly	Asp	Gln	Val	Leu	Val	Ala	Gly	Gln	Lys	Gln	Gly	Ile	Val	Arg
	180							185					190		
Phe	Tyr	Gly	Lys	Thr	Asp	Phe	Ala	Pro	Gly	Tyr	Trp	Tyr	Gly	Ile	Glu
	195					200						205			
Leu	Asp	Gln	Pro	Thr	Gly	Lys	His	Asp	Gly	Ser	Val	Phe	Gly	Val	Arg
	210					215					220				
Tyr	Phe	Thr	Cys	Pro	Pro	Arg	His	Gly	Val	Phe	Ala	Pro	Ala	Ser	Arg
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Ile	Gln	Arg	Ile	Gly	Gly	Ser	Thr	Asp	Ser	Pro	Gly	Asp	Ser	Val	Gly

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<210> 4813
<211> 400
<212> DNA
<213> Homo sapiens
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120
agtgactgtg  ggtgggaaag  gaggccgtgg  tggtgcagc  ttctctctgc  aaacctccac
180
ctcgcccaca  gggcttggct  ttctctccag  ctgtccagga  aaccaccatc  atgattgtta
240
aacacagatt  tgaacattca  cgaagaaact  tccaggggtg  gccaaaccct  ctctctcccc
300
actgcacctc  caagcagcct  tcctgaaagg  gaaaagagta  cagacctgcc  ctctggggac
360
ccctgtgccc  tgccatgacc  agcctttccc  cttcacgcgt
400
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<210> 4814
<211> 125
<212> PRT
<213> Homo sapiens
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<400> 4814
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Phe Gln Glu Gly Cys Leu Glu Val Gln Trp Gly Gly Arg Gly Phe Gly
      20                    25
Ser Pro Trp Lys Phe Leu Arg Glu Cys Ser Asn Leu Cys Leu Thr Ile
      35                    40                    45
Met Met Val Val Ser Trp Thr Ala Gly Gly Lys Ala Lys Pro Cys Gly
      50                    55                    60
Arg Gly Gly Gly Leu Gln Arg Lys Ala Ala Ala Thr Thr Ala Ser Phe
65                    70                    75                    80
Pro Thr His Ser His Trp Gln Thr Gly Gly Gln Val Gln Ser Pro Lys
      85                    90
Glu Thr Ala Ala Cys Ala Gly His Pro Pro Gly Thr Ala Phe Ser Leu
      100                    105                    110
Ile Leu Pro Val Pro Pro Thr Cys Trp Val Ser Val Ala
      115                    120                    125

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<210> 4815
 <211> 528
 <212> DNA
 <213> Homo sapiens

<400> 4815
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 agcatgtcta caagctctgt acgcaaacga tctgaagggtg aagagaagac attaacaggg
 180
 gacgtgaaaa ccagtcctcc acgaactgca ccaaagaaac agctaccttc tattcccaaa
 240
 aatgctttgc ccataactaa gcctacatca cctgccccag cagcacagtc aacaaatggc
 300
 acccatgcct cttacggacc cttctacctg gaattattcac tccttgacaga atttaccttg
 360
 gttgtgaagc agaagctacc aggcgtctat gtgcagccat cttatcgctc tgcattaatg
 420
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 480
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<210> 4816
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 4816
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 20 25 30
 Arg Thr Ala Pro Lys Lys Gln Leu Pro Ser Ile Pro Lys Asn Ala Leu
 35 40 45
 Pro Ile Thr Lys Pro Thr Ser Pro Ala Pro Ala Ala Gln Ser Thr Asn
 50 55 60
 Gly Thr His Ala Ser Tyr Gly Pro Phe Tyr Leu Glu Tyr Ser Leu Leu
 65 70 75 80
 Ala Glu Phe Thr Leu Val Val Lys Gln Lys Leu Pro Gly Val Tyr Val
 85 90 95
 Gln Pro Ser Tyr Arg Ser Ala Leu Met
 100 105

<210> 4817
 <211> 1106
 <212> DNA
 <213> Homo sapiens

<400> 4817
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 120
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 180
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 720
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 840
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<210> 4818

<211> 135

<212> PRT

<213> Homo sapiens

<400> 4818

Met	Ala	Glu	Lys	Phe	Asp	His	Leu	Glu	Glu	His	Leu	Glu	Lys	Phe	Val
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			20						25				30		
Ser	Gln	Ala	Gly	Leu	Asn	Gln	Lys	Leu	Asn	Phe	Ile	Val	Thr	Gly	Leu
		35					40					45			
Gln	Asp	Ile	Asp	Lys	Cys	Arg	Gln	Gln	Leu	His	Asp	Ile	Thr	Val	Pro
	50					55					60				
Leu	Glu	Val	Phe	Glu	Tyr	Ile	Asp	Gln	Gly	Arg	Asn	Pro	Gln	Leu	Tyr
65					70				75					80	
Thr	Lys	Glu	Cys	Leu	Glu	Arg	Ala	Leu	Ala	Lys	Asn	Glu	Gln	Val	Lys

	85		90		95										
Gly	Lys	Ile	Asp	Thr	Met	Lys	Lys	Phe	Lys	Ser	Leu	Leu	Ile	Gln	Glu
	100						105					110			
Leu	Ser	Lys	Val	Phe	Pro	Glu	Asp	Met	Ala	Lys	Tyr	Arg	Ser	Ile	Arg
	115						120					125			
Gly	Glu	Asp	His	Pro	Pro	Ser									
	130					135									

<210> 4819

<211> 1655

<212> DNA

<213> Homo sapiens

<400> 4819

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 1560
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 1655

<210> 4820

<211> 551

<212> PRT

<213> Homo sapiens

<400> 4820

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			20					25					30		
Tyr	Leu	His	Leu	Pro	Asp	Leu	Gly	Arg	Cys	Ser	Leu	Val	Cys	Arg	Ala
		35				40						45			
Trp	Tyr	Glu	Leu	Ile	Leu	Ser	Leu	Asp	Ser	Thr	Arg	Trp	Arg	Gln	Leu
	50				55						60				
Cys	Leu	Gly	Cys	Thr	Glu	Cys	Arg	His	Pro	Asn	Trp	Pro	Asn	Gln	Pro
65					70					75				80	
Asp	Val	Glu	Pro	Glu	Ser	Trp	Arg	Glu	Ala	Phe	Lys	Gln	His	Tyr	Leu
			85						90					95	
Ala	Ser	Lys	Thr	Trp	Thr	Lys	Asn	Ala	Leu	Asp	Leu	Glu	Ser	Ser	Ile
			100					105					110		
Cys	Phe	Ser	Leu	Phe	Arg	Arg	Arg	Glu	Arg	Arg	Thr	Leu	Ser	Val	
	115					120					125				
Gly	Pro	Gly	Arg	Glu	Phe	Asp	Ser	Leu	Gly	Ser	Ala	Leu	Ala	Met	Ala
	130					135					140				
Ser	Leu	Tyr	Asp	Arg	Ile	Val	Leu	Phe	Pro	Gly	Val	Tyr	Glu	Glu	Gln
145					150					155					160
Gly	Glu	Ile	Ile	Leu	Lys	Val	Pro	Val	Glu	Ile	Val	Gly	Gln	Gly	Lys
			165						170					175	
Leu	Gly	Glu	Val	Ala	Leu	Leu	Ala	Ser	Ile	Asp	Gln	His	Cys	Ser	Thr
			180					185					190		
Thr	Arg	Leu	Cys	Asn	Leu	Val	Phe	Thr	Pro	Ala	Trp	Phe	Ser	Pro	Ile
		195					200					205			
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	210					215					220				
Glu	Asn	Gly	His	Ile	Gln	Val	His	Gly	Pro	Gly	Thr	Cys	Gln	Val	Lys
225				230						235				240	
Phe	Cys	Thr	Phe	Lys	Asn	Thr	His	Ile	Phe	Leu	His	Asn	Val	Pro	Leu

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 260 265 270
 Thr Val Glu Gly His Pro Ser Ala Asp Lys Asn Trp Ala Tyr Lys Tyr
 275 280 285
 Leu Leu Gly Leu Ile Lys Ser Ser Pro Thr Phe Leu Pro Thr Glu Asp
 290 295 300
 Ser Asp Phe Leu Met Ser Leu Asp Leu Glu Ser Arg Asp Gln Ala Trp
 305 310 315 320
 Ser Pro Lys Thr Cys Asp Ile Val Ile Glu Gly Ser Gln Ser Pro Thr
 325 330 335
 Ser Pro Ala Ser Ser Ser Pro Lys Pro Gly Ser Lys Ala Gly Ser Gln
 340 345 350
 Glu Ala Glu Val Gly Ser Asp Gly Glu Arg Val Ala Gln Thr Pro Asp
 355 360 365
 Ser Ser Asp Gly Gly Leu Ser Pro Ser Gly Glu Asp Glu Asp Glu Asp
 370 375 380
 Gln Leu Met Tyr Arg Leu Ser Tyr Gln Val Gln Gly Pro Arg Pro Val
 385 390 395 400
 Leu Gly Gly Ser Phe Leu Gly Pro Pro Leu Pro Gly Ala Ser Ile Gln
 405 410 415
 Leu Pro Ser Cys Leu Val Leu Asn Ser Leu Gln Gln Glu Leu Gln Lys
 420 425 430
 Asp Lys Glu Ala Met Ala Leu Ala Asn Ser Val Gln Gly Cys Leu Ile
 435 440 445
 Arg Lys Cys Leu Phe Arg Asp Gly Lys Gly Val Phe Val Cys Ser
 450 455 460
 His Gly Arg Ala Lys Met Glu Gly Asn Ile Phe Arg Asn Leu Thr Tyr
 465 470 475 480
 Ala Val Arg Cys Ile His Asn Ser Lys Ile Ile Met Leu Arg Asn Asp
 485 490 495
 Ile Tyr Arg Cys Arg Ala Ser Gly Ile Phe Leu Arg Leu Glu Gly Gly
 500 505 510
 Gly Leu Ile Ala Gly Asn Asn Ile Tyr His Asn Ala Glu Ala Gly Val
 515 520 525
 Asp Ile Arg Lys Lys Ser Asn Pro Leu Gln Ile Gly Asn Pro Arg Ala
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 Glu Phe Leu Ala Ser Arg Ala
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<210> 4821

<211> 585

<212> DNA

<213> Homo sapiens

<400> 4821

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 120
 agagaactgg gggagctgct gggcgaagca cgctactacc tgggtcaggg cctgattgag
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 240